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Models for planned changes in schools are presented in this document and are aimed at increasing student achievement and satisfaction. Following a brief introduction which highlights a challenge for effective change and some suggested procedures for implementing the models, each model is presented in detail. The four models are: (1) The School Process Model, (2) The Teacher Evaluation Model, (3) The Curriculum Evaluation Model, and (4) The Instructional Process Model. The models are complete and show all phases and related materials for each. Included are flow charts within the models plus a chart showing the working relationship of the models to each other and their relationship to the entire elementary and secondary school program. Related documents are RC 003 749, RC 003 750, and RC 003 752. (DB)

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System Analysis, Program Development, And Cost-Effectiveness Modeling Of Indian Education

For the Bureau of Indian Affairs

VOLUME IV

INTERNAL SCHOOL MODELS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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Chapter I

I. INTRODUCTION

This volume presents four internal school cost-effectiveness models for implementing planned changes in schools.

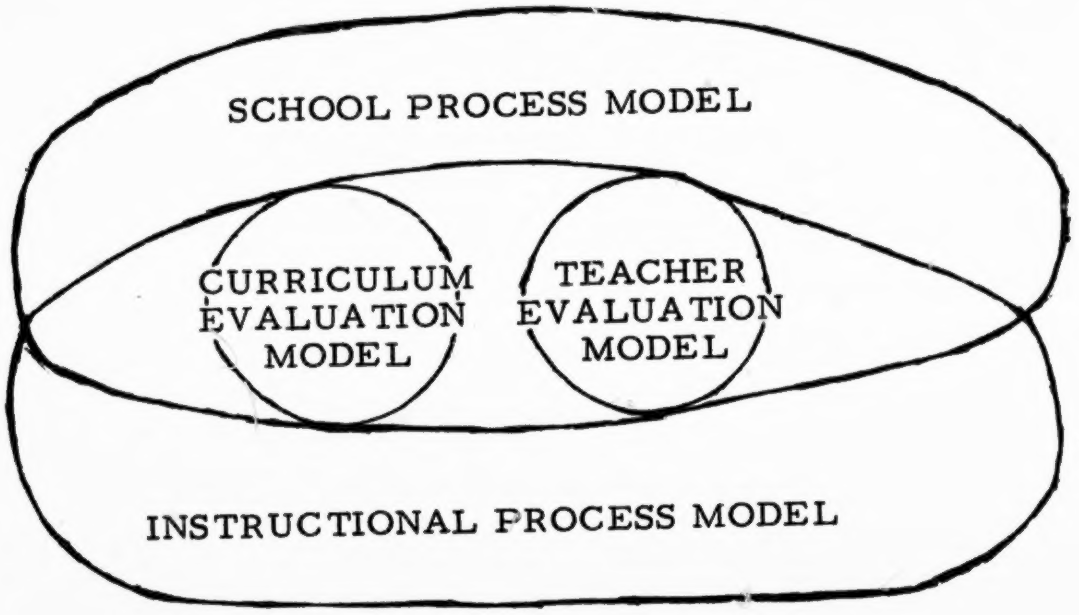
a) The School Process Model (SPM) is presented in the form of a planbook entitled "Operation Self-Renewal" (OSR). The OSR Planbook is designed to assist in identifying problem areas within the school, developing appropriate and potentially cost-effective program solutions to identified problems, and testing and revising those programs until they can become "normal" school process components.

b) The Teacher Evaluation Model (TEM) is also presented in workbook form. Its principal uses are: developing an "in-service" strategy for increasing teacher effectiveness; and providing an objective data base for teacher advancement decisions.

c) The Curriculum Evaluation Model (CEM) is an instrumented technique for determining cost-effectiveness of alternative curriculum materials.

d) The Instructional Process Model (IPM) is designed to generate and/or evaluate cost-effective educational programs directed toward specific instructional objectives both inside and outside of the classroom.

The relationship of these four models to each other is depicted in a general way in the diagram below. A more specific flow chart showing the working relationship of the models to each other will be found in the next section.



Whatever other objectives the four internal school cost-effectiveness models may serve, their principal aim coincides with the chief goal of elementary and secondary schools: the increase of appropriate student achievement and satisfaction.

2. SCHOOL C/E MODELS' APPLICATIONS

a. Statement of Need

The need for change in schools is developed in some detail in the "Introduction" to Operation Self-Renewal beginning on page 3-12 of this Volume.

b. Problems of Application and Implementation.

The application of any one or all of the internal school models at the local school level by a principal or other school administrator implies a willingness to learn and to change.

Herein lies a problem. School administrators often resist change because it is time-costly and time is always seen as a scarce commodity, or because past attempts have been irregular and often abortive. Or because results have not seemed commensurate with effort.

Yet if key administrators do not take positive leadership in the effort to improve the total educational ecology of their school (directed toward graduating more students, who have achieved more, at a higher level, and who are better equipped to make the transition into further education and employment) it is unlikely that positive change will happen.

Application of these models must also deal with the problem of "authority." If a school administrator is "required" to implement a process for change it is likely that he will "require" participation of staff and teachers who, in turn, will demand that students participate, willingly or not, in fulfilling at least the letter of the requirement, if not the spirit. But it is precisely the "spirit" that will usually determine whether a proposed change will succeed or fail.

On the other hand, unplanned participation can lead to equally unhappy results: a process begun which raises expectations and then is not well carried through raises formidable resistance to future attempts. It is not better (as far as school systems are concerned) to have half-tried and failed than not to have tried at all.

School administrations are appropriately concerned with the allocation of scarce resources: time, personnel, space, money. And while it is true that any complex process can be modeled, the use of a model in real life situations requires: reason, commitment, flexibility openness--in short, art.

c. Strategies for Implementation of Internal School Models.

Getting people to undertake programs for change is difficult under the best of circumstances. This is particularly true in schools. Hence, strategic considerations for "capturing" the attention and energy of key personnel are of paramount importance. No matter how effective in the abstract an instrumented model for change is, it is worthless if it is not used. The following specific strategies are recommended in decreasing rank order of anticipated effectiveness:

1) Change Workshops--small intense workshops of no more than 12 principals and superintendents from widely diverse schools geographically, but relatively similar in size for 7 to 10 days in the late summer or early fall. The purpose would be to introduce and to familiarize by simulation, key administrators in the use of the four internal models. As part of the exercise, participants would be asked to help refine the models. This group would also become a primary inter-supportive task group, sharing by letter and phone their actual experiences with the use of the models during the year. If cost necessitated, one pilot workshop could be developed which would form the basis for training administrator's to train new administrators the following summer after a year's experience with application of the models.

2) Demonstrations: in this strategy, a "preceptor" well-versed in the models and their implementation would visit a number of schools for at least a week, and work with the principal or superintendent in situ to start-up model use. He would be available by telephone or short return visit to help where snags arose or additional support were needed.

3) Direct explanation: a one-time visit to the local school chief administrator for a "sales" approach to the purpose and method of the cost-effectiveness internal school models.

4) Written Introductions: here the entry of the model into the school would be by written explanation only in the form of programmed instruction for model application.

5) Media Support Possibilities: each of the four strategies above would be materially enhanced by the addition of media support in the form of: an introductory film, or slides and tapes. Such support would be virtually necessary for direct explanation or written introduction of the models.

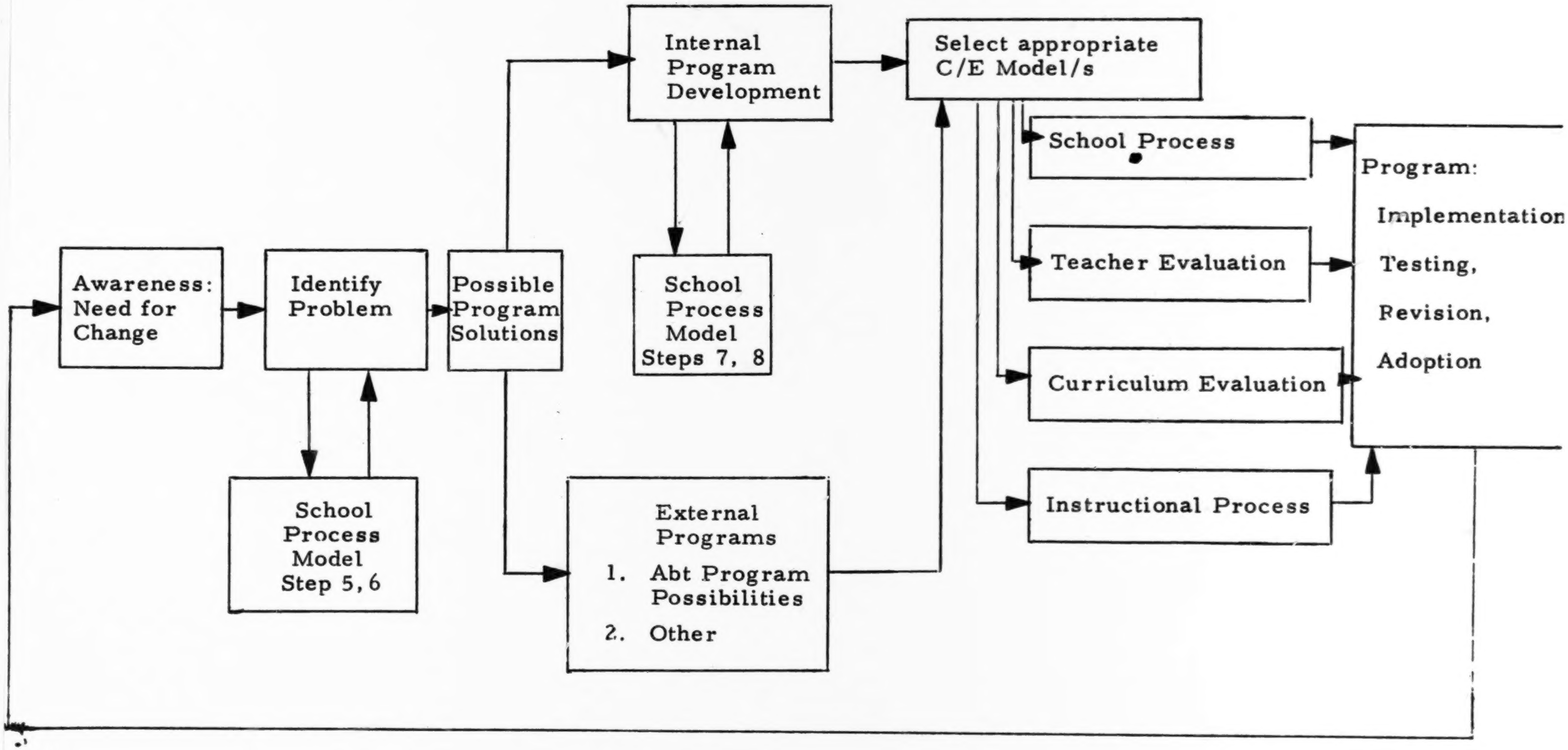
d. Continuing Model Refinement

The four models as they appear in this section are untested. Refinement of the models through actual use will have two important results: 1) the models will become more practical instruments for change as they are adapted on the basis of experiential data, and 2) they are sufficiently "open" to invite a strong sense of participation in the final design process by the user.

3. SCHOOL C/E MODEL MIX

On the next page is a flow chart indicating the relationship of the four internal school models to an overall change process. The models can be used separately, or in a variety of combinations. The School Process Model - "Operation Self-Renewal" has been developed to provide an overall approach to change in the school. The other three models detail specific response to critical areas of school process: teachers, curriculum,instruction. Program solutions to problems can come from two sources: internal--developed within the school, and external--such as the possible programs developed by Abt Associates appearing in Volume II, or from other sources. The model mix and use will vary from school to school.

INTERNAL SCHOOL C/E MODELS' MIX


Awareness: Need for Change
Identify Problem
School Process Model Step 5, 6
Possible Program Solutions
Internal Program Development
School Process Model Steps 7, 8
External Programs
1. Abt Program Possibilities
2. Other
Select appropriate C/E Model/s
School Process
Teacher Evaluation
Curriculum Evaluation
Instructional Process
Program:
Implementation
Testing,
Revision,
Adoption

Chapter II

NOTE

What follows is the School Process Model in workbook form: "Operation Self-Renewal Planbook."

The following presentation format is implied in the narrative:

1. The OSR Planbook is a package: containing:
    a. One master planbook for the Principal with material as presented here.
    b. Five planbooks with the following material deleted: FOREWARD, MEMORANDUM, QUESTIONNAIRE A, NARRATIVE: all steps
    c. One "Work-kit" containing: 5 OSR FEEDBACK QUESTIONNAIRES, 6 QUESTIONNAIRE A's, 6 STEP 2 AGENDAS, 10 OSR PREPARATION AND DEVELOPMENT LOGS, 10 OSR MASTER FLOW CHARTS.

2. The OSR Planbook os 3-hole punched and bound in loose leaf notebooks. The "Work-kit" is bound in a similar fashion.

3. The Planbook may be more effectively presented if the Flow charts are color coded: PREPARATION - red, DEVELOPMENT - yellow, ACTION - green.

Chapter II

SCHOOL PROCESS MODEL

"Operation Self-Renewal"

PLANBOOK

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FOREWORD

Dear Principal:

If you are already convinced of the need for self-renewal in your school, and want to get going in a hurry,

or

if you are terribly busy, and don't know whether you're interested in self-renewal or not,

then

skip ahead to the MEMORANDUM to the Principal on page 8-17.

If you can take the time (regardless of your current attitude toward school self-renewal through a planned process), read carefully the Introduction which follows the table of contents.

OPERATIONS SELF-RENEWAL PLANBOOK is simply a tool to help you do your job more effectively.

As such it is neutral about specific changes that might benefit your school. It is a response to wide-spread need for a way to attack a host of serious problems in a rational and meaningful way. And it does presuppose that meaningful change can be planned and carried out for the purpose of promoting measurable gains in student achievment and satisfaction.

What your specific school problems are, and what specific projects might be remedial in meeting those problems at reasonable costs, only you and members of your school community can determine.

ACKNOWLEDGEMENTS

The authors of OPERATION SELF-RENEWAL PLANBOOK wish to acknowledge a debt to the following people for the understanding of the nature and processes of change in schools which has developed over the past 15 years: Kenneth Benne, Paul Buchanan, Paul Goodman, Roger Harrison, Richard Hopkins, Charles Jung, Ronald Lippit, Douglas McGregor, Matthew Miles, and Goodwin Watson.

The process logic employed in the PLANBOOK is dependent in part on Goodwin Watson's formulation in his "Toward A Conceptual Architecture of a Self-Renewing School System" in Change in School Systems published for Cooperative Project in Educational Development, (COPED), by the National Training Laboratories, NEA, Washington, D. C., 1967. This article is reproduced in its entirety in the Appendix with the kind permission of the author.

A special note of thanks goes to Mrs. Miriam M. Ritvo, who was Project Director of COPED. Her kind and attentive assistance was invaluable in developing this instrument.

INTRODUCTION

Historically change in schools has been:

- drifting
- sporadic
- the result of external pressures
- expedient
- in bits and pieces
- too little too late
- superficial
- related to narrow self-interest

The sense of powerlessness to effect meaningful, rational, and life-renewing growth generally comes from baffled response to institutional complexity and lack of honest communication. This sense of powerlessness is often equally, though unknowingly, shared by administrators, teachers, students, and parents.

When a process for managing complexity and developing honest communication is adopted, and adapted to particular school situations, each element in a school community can creatively engage in solving real common problems.

Schools can change through planning which is:

- democratic
- rational
- responsive to individual needs
- in tune with larger patterns of change
- continuous
- an expression of conviction
- internally generated
- timely
- designed to do the educational job better
- basic to educational functions

Why have schools historically changed in a non-rational way? After all, they are ostensibly dedicated to rationality, and the development, transmission and utilization of knowledge.

Matthew Miles, in an article entitled "Some Properties of Schools as Social Systems"[1] has distilled some of the major features, properties, and problems of American public schools. A summary of his analysis is presented here. It is compelling evidence both of the need for planned change, and of the nature of resistance to change.

A. General features of the school in America

1. the school is a social construct which exists to bring about "wanted" changes in the child.
2. the school is usually organized on the basis of local control and financing.
3. the school is a compulsory institution
4. the school is de facto unconnected with other institutional elements of society whose function is, at least in part, changing children (e. g., family, welfare, police, courts, employers, political groups).
5. the school is in covert vertical linkage with colleges, graduate schools, accrediting agencies, state departments of education, and the educational bureaucracies of the Federal Government. There is also a horizontal linkage to the mass media and manufacturers and retailers of educational hard and software.

B. Essential properties of schools

1. Goal diversity and conflict:
   a) because of multiple expectations from community sub-constituencies schools' goals are usually abstract, numerous and given shifting priorities, often in conflict with one another. (Although subject-matter achievement, socialization, and custodial care would account for the broad categories in rank order.)
   b) school goals carry heavy emotional freight in so far as children are "valuable property."
   c) given the above conditions and the long-term longitudinal nature of behavior change in school children, there has been and is great difficulty in measuring the "product" outcomes in any systematic, statistically significant, and

---

[1] op cit., Change in School Systems, NTL, 1967, Pages 1-29.

meaningful ways.

d) school goals are rarely, if ever, related to learner perceived needs and goals.

2. The mechanisms for achieving school goals and attendant problems.

   a) students are primarily age-graded, yet exhibit wide difference in achievement ability .

   b) teaching, the basic role performance in school, takes place 90% of the time without adult contact, support or supervision.

   c) stereotypical response to teacher role is highly uniform and the role itself is relatively static in terms of upward mobility. The demands of the stereotype plus the subject matter and classroom demands tend to make the teacher by far the most "active" (60-80%) participant in the classroom process.

   d) school work-flow decisions tend to lean on tradition rather than the results of inquiry into the work process (learning, developmental, social, psychology).

   e) hence educational innovation becomes exceptionally difficult in practice (much too easy in theory) because it necessarily involves human interaction and training retraining components.

   f) "...a major untapped resource in any school is the ideas and reactions of children about the efficacy of the education procedures in which they are involved, the role behaviors which are being presented to them, and possible innovations which would improve task accomplishment and emotional climate. Direct feedback channels from this point of view, are much needed."[2]

3. Commitment of school members to goal achievement

   a) schools have very low interdependence of various parts of the system: e.g. teachers are relatively isolated from adult contact during the day. Low interdependence makes planned change more difficult.

   b) Low role mobility, and career patterns of people entering teaching make recognition and reward, and intrinsic satisfaction more difficult.

   c) for the teacher compulsory attendance of students and a heavy schedule make positive motivation difficult.

---

[2] _op cit._, Page 12

d) for the learner, compulsory attendance calls into question any internally motivated desire to learn.

4. Problems of school adaptation to environment

    a) so many conflicting pressures are brought to bear on the local school from so many sources that a sense of being particularly vulnerable and therefore especially defensive is quite common. In addition methods for accepting outside influence are relatively undeveloped.

    b) factors of law, finance, and geographical districting create an essentially non-competitive stance for the school: it will continue to exist within a very wide range of actual performance outcomes.

    c) social change outside schools is more rapid and extensive than it ever has been in this country. Schools are affected by this in terms of change in school population, subject matter, and change in other political, economic and social subsystems. The need to adapt appropriately is being radically accentuated, and minimally met.

    d) the child becomes a focus for much of the frustration which "uncontrolled" non-understood rapid change produces. The child naturally responds to these multiple and conflicting pressures in a variety of non-efficient ways, in terms of learning.

C. School Problem Symptoms

1. Goal problems

    a) there is a tendency for decision goals to be ideologically rather than empirically based.

    b) value conflict often arises internally as a result of the schools' self-perceived role as transmitter of ideal culture in the midst of actual evidence to different value positions.

    c) financial rather than cost-effective measures are often used as justification criteria.

2. Task function problems
   - a) procedural rigidity is often maintained as a hedge against unplanned change, and becomes a barrier to planned innovation.
   - b) only 1 out of every 300 school districts in the country has overt capacity for systematic research. Probably only 12 districts in the entire country have what could be properly called a research and development unit to develop, test, and aid in implementing planned needed change.
   - c) vulnerability, role diffusion, and real work overload supports widespread administrative inefficiency regardless of the skills and intent of individual administrators.
   - d) there is proven self-selection for teacher role of more passive, more deferent, less competitive personality constellations. This coupled with tenure systems in most school districts is a significant constraint to change.
   - e) continuing questions of competency between teachers and administrators lead to a classic struggle between "experts" which is generally unresolvable except by the overt or covert exercise of raw power.
3. Interpersonal Maintenance Problems
   - a) morale problems are endemic to schools and hard to combat. Covert negative sentiments are not system constructive.
   - b) the structure of the school promotes intergroup conflict: between grades, elementary, junior and senior high, at all levels.
   - c) little systematic and extensive in-service training is done in most schools.
4. Failure to Adapt Problems
   - a) system vulnerability tends to produce passivity rather than initiative in response to conflicting forces.
   - b) rationalized defense of existing policies and procedures is frequent and extensive
   - c) relationships with parents are often strained and disruptive because of the volatile dynamics of the parent-child subsystem.

The above "catalog" is both formidable and compelling. It documents the need for carefully planned change and indicates the need for widespread participation in change.

If you have read this far and are now interested in the degree to which the use of this planbook might serve you, and what style of implementation might be most appropriate, turn to the Memorandum on the next page and then take the questionnaire (A) which follows it.

MEMORANDUM

TO: The Principal
FROM: Project Self-Renewal Planbook
SUBJECT: Is Operation Self-Renewal Relevant to Your School?

It will take time and energy to use this Planbook. The Planbook is a tool designed to assist you in promoting rational and meaningful change in your school. The principle goal of such change is to produce measurable gains in student achievement.

But you are a busy man.

Rather than ask you to spend further time reviewing this planbook in detail, a questionnaire has been designed which will take 10 to 15 minutes at the most. The results of this questionnaire will help you decide whether it is worth your while to spend more time on Operation Self-Renewal.

If you are so inclined, you may want to call in a few administrative and teaching staff members (perhaps even a bright student or two) to take this questionnaire with you. If so, you will find six extra copies in the supplementary Operation Self-Renewal Work Kit.

If you do invite others to participate now, it would be appropriate to let them know in advance that you are:

1) only looking for a range of response,
2) seeking counsel before you make a decision, or
3) asking them to share in the decision whether or not to go ahead with Operation Self-Renewal.

Remember, you are in fact the key decision-maker in your school! (Though it may not always seem so in practice.) That makes you the the central agent for meaningful change. Operation Self-Renewal can help you fulfill that privileged responsibility.

Questionnaire - A

IS OPERATION SELF-RENEWAL RELEVANT TO THIS SCHOOL?

Assumptions: relevance here means the feasibility of meaningful change in your school. Meaningful change is defined as those changes which will lead to improved attitudes, increased cooperation, better use of human and material resources, wider and deeper shared sense of satisfaction -- all directed to measurable gains in student achievement both in and after leaving school.

Directions: 1) Put a check mark in the appropriate box after each statement:

yes
no
unsure

2) If you feel particularly strongly use two check marks

3) When you have completed, turn to the scoring pages and follow the scoring instructions.

----

1. We can hardly keep up with the work we have to do now, much less fill out any more forms! →

2. There are a number of things which could be changed in this school to make it more effective. →

This is especially true in areas of:

a) teaching
b) administration
c) additional funds
d) plant facilities
e) curriculum
f) teaching aids
g) BIA support & policies
h) guidance and counselling

skip Scoring Page and go to A3 →

Questionnaire A -- SCORING SHEET

Directions: Each statement is weighted on a scale of from -10 to 10. The factor in each case has been developed from experiential analysis of those forces which in fact promote or retard the planning and implementation of meaningful change.

Multiply the factor for each statement by:

→ +1 each yes → ✓ (YES)
→ -1 each no → ✓ (NO)
→ 0 unsure → ✓ (UNSURE)
→ +2 or -2 double chk → ✓✓
(remember! a minus x minus = +)

Then enter the result in the score column

Final scoring procedures and their interpretation will be found at the end of the scoring sheet.

FACTOR	X	SCORE		YES	NO	UNSURE
-8			1.			
8			2.			
5			a)			
4			b)			
3			c)			
2			d)			
5			e)			
1			f)			
2			g)			
3			h)			

- i) student attitude
- j) parents attitude

3. Meaningful change can be brought about only if there is more money available.

4. We would like to make meaningful changes, but any attempt is likely to fail because resistance to change is so great among:
   - a) teachers
   - b) students
   - c) BIA
   - d) parents
   - e) community at large

5. Everything is just fine the way it is.

6. We are glad to have visitors come and see what we are doing here.

7. The students here are innately limited in their intellectual capacity.

8. If there were realistic options, I would leave this school rather than let things go on the way they are.

9. I would welcome a process that would allow rational participation of the entire school community in developing projects that might lead to meaningful change.

10. There could be a better use of current funds if new priorities could could be established and accepted by:
    - a) staff
    - b) teachers
    - c) parents
    - d) students

11. It's solely up to the principal to initiate and carry through change.

OSR-DR-A4

Factor	X	Score		Yes	No	Unsure
3			i)			
5			j)			
-2			3.			
-5			4 a)			
-3			b)			
-1			c)			
-5			d)			
-1			e)			
-7			5.			
5			6.			
-9			7.			
-6			8.			
7			9.			
2			10 a)			
4			b)			
5			c)			
2			d)			
-7			11.			

Enter Sub-Total from last page ☐ + ☐ =

Go to A6 →

12. While it is the functional responsibility of the principal to initiate and sustain change activity, to effect significant and lasting gains he must have the cooperation and involvement of:

a) community leaders
b) parents
c) students
d) staff
e) teachers
f) BIA

Go back to A2 and begin scoring. →

FACTOR	X	= SCORE		YES	NO	UNSURE
5			a)			
7			b)			
8			c)			
7			d)			
8			e)			
3			f)			

Enter Sub-Total from last page ____ + ____ =

Total Score ____

INTERPRETATION OF SCORES

PART 1) Should we proceed with Operation Self-Renewal?

a) If a group, rather than an individual has taken this questionnaire, and that group is responsible for deciding whether or not to implement Project Self-Renewal, average total scores.

b) Score above 150: proceed with Operation Self-Renewal. If your observations approximate the reality of dynamics in your school and you follow the process laid out in the Planbook carefully you can be reasonably certain that meaningful change will come about.

c) Score between 25 and 150: proceed with caution! Review the Planbook carefully. Have others take this questionnaire. It may be that objective and attitudinal factors will seriously compromise efforts at meaningful change.

d) Score below 25: It is probably wise to abandon an attempt (at least right now) to implement Operation Self-Renewal. Fill out the OSR FEEDBACK QUESTIONNAIRE (example on page 16, work copies in the Work Kit) and mail back with the unused portion OSR PACKAGE.

Go to A7 if your score was above 25 →

PART 2 If we decide to go ahead with Operation Self-Renewal, who should be involved?

Enter your scores from the following questions:

4. a)	
b)	
c)	
d)	
e)	
7.	
9.	
10. a)	
b)	
c)	
d)	
11.	
12. a)	
b)	
c)	
d)	
e)	
f)	
Total Sub-Score	

a) If your sub-score is above 40 you will want to involve the entire school community, and consider adding parents and community leaders.

b) If your sub-score is between 0 and 40, you may want to choose a representative group from the various school constituencies.

c) If your sub-score is between 0 and -40, you will want to proceed with just the principal and perhaps a few carefully chosen staff and teachers.

Proceed to Page 18

OSR FEEDBACK QUESTIONNAIRE

Part A

I. If you decide to discontinue OSR, check the following:

discontinued because --

Insufficient time ____ Insufficient interest ____

On the basis of Principal's score Ques. A ____

Score ____

On the basis of reviewer's score Ques. A ____

Average Score ____

On the basis of STEP 2 process ____

If the last, describe briefly the factors which were discussed with reviewers that lead to the decision to discontinue:

____

____

____

____

II. Please check if any of the following apply to your decision to discontinue.

In my judgment, "Operation Self-Renewal Planbook" is:

Irrelevant ____

Unclear ____

Inadequate ____

Impossible to implement ____

Too detailed ____

Confusing ____

Not detailed enough ____

Would be too costly ____

Should be revised ____

Should be abandoned ____

Would be ineffective ____

Would be too time-consuming ____

Would raise false hopes ____

I would never use this kind of instrument ____

Would be disruptive ____

I would use this kind of instrument at some time ____

Other ____________________

____

III. I have the following comments about OSR Planbook:

____

____

____

(use back of sheet if necessary)

Part B

I. If not completed to the end:

a. Completed through STEP ____

b. Reason for discontinuing: ______________________________

____

____

c. Judgment about OSR Planbook: Check Part A-II as appropriate.

d. Suggestions: ______________________________

____

____

II. If completed to the end:

a. Overall judgment of effectiveness on 0-100 scale: ____

b. Suggested changes and revision: ______________________________

____

____

c. Attach summary of project descriptions, revisions, discontinuation or adaptation, and cost in dollars.

d. Has there been a measurable change in:

Student achievement ____ yes ____ no

If so, how much? ______________________________
(Aggregate Grade Change)

Student satisfaction ____ yes ____ no

If so, how do you know?
____ decreased incidence of negative behavior
____ increased perception of satisfaction
____ expressed

Teacher and staff satisfaction ____ yes ____ no

If so, How do you know?
____ decreased incidence of negative behavior
____ increased perception of satisfaction
____ expressed

The OSR Planbook is comprehensive in scope and detail, much as an instruction manual for assembling a hi-fi kit. You are urged to adapt the material to your own needs and prior planning experience. It is hoped that you will share your experience and suggestions as you use these materials, since the Planbook must be subject to the same renewing and refining process it sets forth. To this end, five copies of an OSR FEEDBACK QUESTIONNAIRE have been included in the Work Kit at the end of the Planbook to be used as needed and indicated during Step 1, Step 2, or after Step 12.

A number of pages in this Planbook are models you can reproduce as appropriate. Additional copies of any of the materials are available on request.

Operation Self-Renewal is essentially a process for systematically determining the perceived needs in your school, sorting them, developing remedial projects, pilot testing those projects, evaluating the results, and making changes - all within the appropriate allocation of scarce resources: money, time, space, personnel, and materials.

Because OSR is a process it can be broken down into task modules which lend themselves to the shorthand of flow charts, both verbal and graphic. On page 24 is the OSR master PROCESS PATTERN flow chart which lays out the twelve steps to be taken in implementing OSR.

The twelve steps are evenly divided into three phases: PREPARATION, DEVELOPMENT, and ACTION:

PHASE I - PREPARATION

This phase entails a review of the Planbook, the decision to use it, the adaptation of the Planbook to your particular needs, and the presentation of the purpose and procedure of Operation Self-Renewal to your school.

PHASE II - DEVELOPMENT

This phase is concerned with discovering and refining concerns, identifying or inventing feasible project remedies for those concerns, and developing project priorities which offer the best likelihood of producing needed change in light of costs, benefits, and constraints.

PHASE III - ACTION

This final phase includes the decision as to which projects will be begun and when. It provides for a means of evaluating and revising projects under way, and finally, whether a project should be continued, revised, or dropped from full integration into your regular school program. The Planbook then cycles back to the beginning of Phase II for continuing self-renewal.

WHO SHOULD BE INVOLVED IN OSR?

The answer to this question depends on a number of factors: the size of your school, the amount of time you are committing for the implementation of OSR, and the level of involvement you are able to manage. Your subscore and its interpretation on page 15 will give you an indication with regard to the last factor.

The OSR PROCESS PATTERN master flow chart shown here represents the median involvement of a school community. Time and school population constraints will make its use appropriate in a majority of schools. By median involvement is meant a representative cross-section of administrative staff, teachers, and students.

Two principal administrative structures are recommended for implementing OSR:

1) The School Renewal Council [SRC]: This group should be representative and for the sake of effective operation should not exceed seven: 2 staff, 2 teachers, 2 students; or 3 staff and teachers and 3 students; in either case the Principal (or Superintendent where appropriate) should serve as the 7th member as chairman. The SRC can be chosen by principal appointment, by self-nomination and appointment, by elected slate and appointment, by direct election, or by any mix of these methods. The authority and responsibility of the SRC should be defined in advance by the Principal,for it is this group that will do much of the work and

attitudes of its members toward the Self-Renewal process will be a critical factor for success.

2) The OSR Manager: This can be a staff member, a secretary, a teacher, a student. The OSR Manager's function is to arrange schedules, see that questionnaires and other materials are ready, keep the Project Log up-to-date and generally keep the mechanical aspects of OSR running smoothly.

If a less complex structure is desirable for whatever reason, the Principal can act as a one man SRC, using the OSR Concerns Inventory Questionnaires with a few selected and presumably representative community members.

In a very large school it may be appropriate to have each class elect 4 or 5 class members to a School Renewal Forum so that the giving of questionnaires and tabulating results can be sharply streamlined.

It should be cautioned, however, that any streamlining for efficiency's sake that excludes a significant number of community members from participation, may seriously reduce the liklihood of acceptance of projects.

WHAT GRADE LEVELS SHOULD BE INVOLVED?

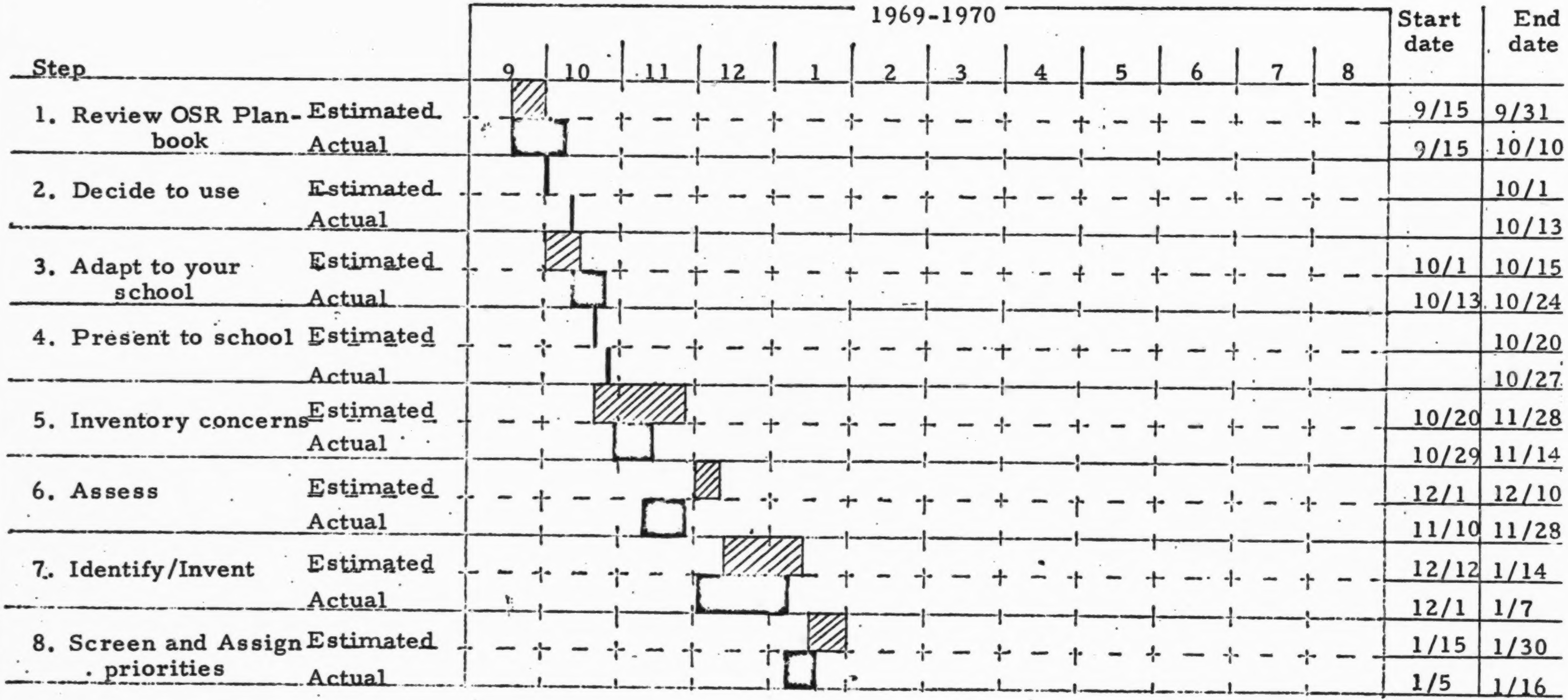
It is recommended that OSR include from 4th or 5th grade up. It may be desirable to have a modified OSR Concerns Inventory Questionnaire administered orally to younger students, preferably by someone other than their teacher.

Decisions in this area are clearly dependent on the dynamics of your own school.

WHAT IS THE BEST WAY TO SCHEDULE OSR?

Scheduling decisions should be made carefully and early. It is better to take a bit too long, than to allow too little time for the self-renewal process. On the next page is an example OSR Preparation and Development Log which will be a helpful scheduling device. It provides space for both an estimated and actual time expenditure for Steps 1-8 of OSR so that experience will make future scheduling more realistic. A blank master copy of the OSR Preparation and Development Log will be found in the Work Kit.

EXAMPLE
OSR PREPARATION AND DEVELOPMENT LOG (STEPS 1-8)



Step		Start date	End date
1. Review OSR Plan-book	Estimated	9/15	9/31
	Actual	9/15	10/10
2. Decide to use	Estimated		10/1
	Actual		10/13
3. Adapt to your school	Estimated	10/1	10/15
	Actual	10/13	10/24
4. Present to school	Estimated		10/20
	Actual		10/27
5. Inventory concerns	Estimated	10/20	11/28
	Actual	10/29	11/14
6. Assess	Estimated	12/1	12/10
	Actual	11/10	11/28
7. Identify/Invent	Estimated	12/12	1/14
	Actual	12/1	1/7
8. Screen and Assign priorities	Estimated	1/15	1/30
	Actual	1/5	1/16

SOME STYLE NOTES ON IMPLEMENTING OSR

The style employed in implementing meaningful change is a critical factor in the success of that change. The following ground-rules should be adhered to as closely as possible:

1) The purpose and procedure of Operation Self-Renewal must be fully understood by all participants involved in each step in the renewal process. Do not rush the PREPARATION PHASE (I). The time you spend in careful "tooling-up" will be repaid in the level of commitment and energy which participants will be willing to spend.

2) Guarantees of absolute anonimity must be stressed, especially to students by their teachers who will be administering the various questionnaires to them. A breach of this ground-rule will have severe adverse effect on the quality of the data.

3) Members of the Self Renewal Council will be most effective if a climate of trust and acceptance of differences of opinion is explicitly established.

4) Care should be taken to follow through on OSR once it is begun. Unfulfilled expectation of change can be very damaging to school community morale.

5) Feedback processes are critical to the success of a meaningful change effort. It would be well to establish early regular communication on the progress of OSR: a "Self-Renewal Bulletin" at bi-weekly intervals, appropriate assemblies, announcements via teachers - are all viable as communication strategies. Whatever you choose to do in this regard, remember, people want and need to know what is happening as a result of their work, their opinions, and suggestions.

6) It is absolutely essential that both the Principal and OSR Manager keep one STEP ahead in detailed familiarity with materials and mechanics.

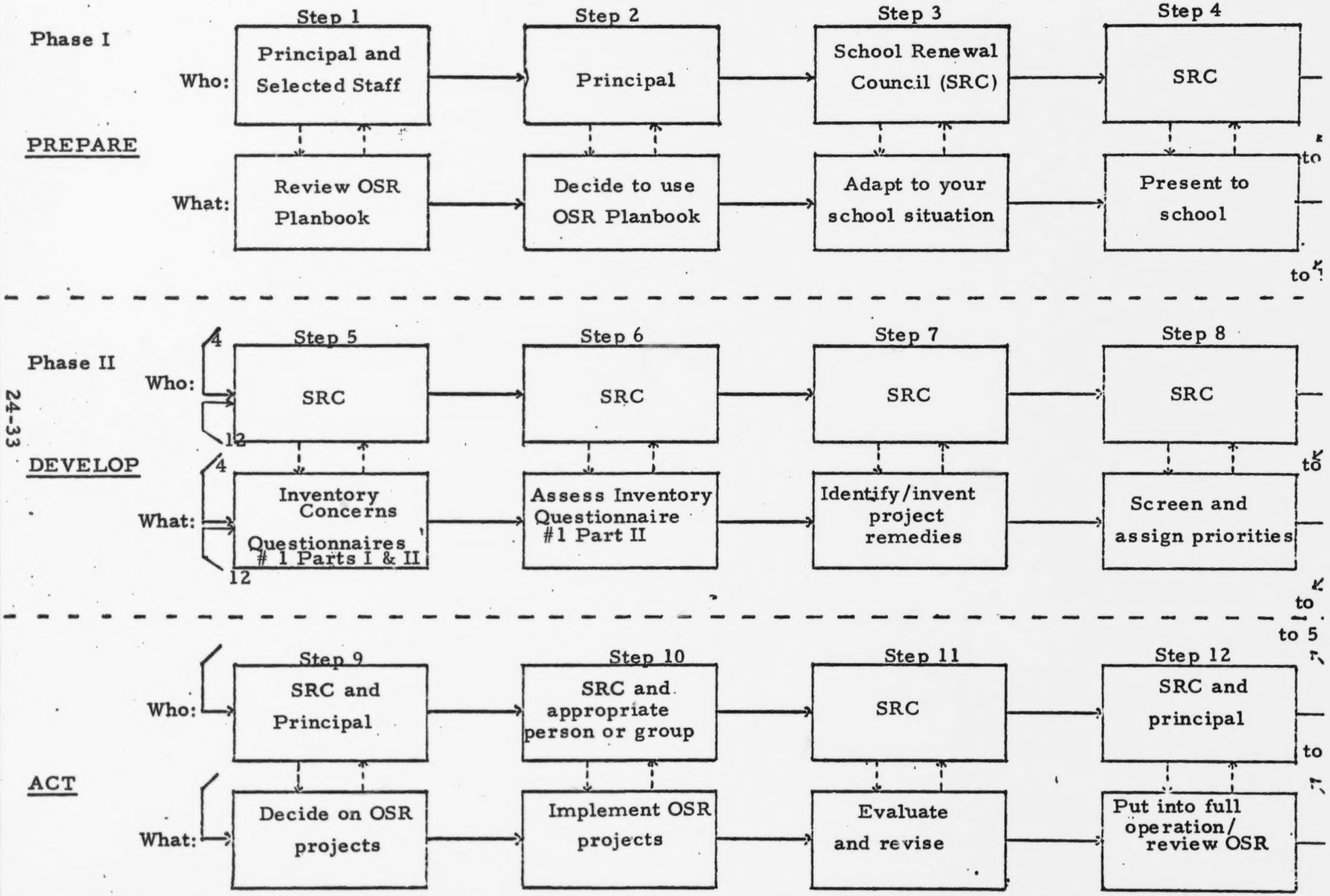
OPERATION SELF-RENEWAL MASTER FLOW CHART

On the next page is the Operation Self-Renewal master flow chart. It is important that you understand the sequence and scope of events involved in carrying out Operation Self-Renewal before you begin to implement it. If you are uncertain what is involved in each step refer to the detailed description of that step (see table of contents for location).

You will note that there are two opportunities to "discontinue" use of this planbook: in step 1 and in step 2.

When you have familiarized yourself with the over-all process of OSR turn to page 25 , STEP 1 and begin.

OSR PROCESS PATTERN


Phase I
PREPARE
Who:
What:
Step 1
Principal and Selected Staff
Review OSR Planbook
Step 2
Principal
Decide to use OSR Planbook
Step 3
School Renewal Council (SRC)
Adapt to your school situation
Step 4
SRC
Present to school
to
to
Phase II
DEVELOP
Who:
What:
4
12
4
12
Step 5
SRC
Inventory Concerns Questionnaires # 1 Parts I & II
Step 6
SRC
Assess Inventory Questionnaire #1 Part II
Step 7
SRC
Identify/invent project remedies
Step 8
SRC
Screen and assign priorities
to
to
to 5
ACT
Who:
What:
Step 9
SRC and Principal
Decide on OSR projects
Step 10
SRC and appropriate person or group
Implement OSR projects
Step 11
SRC
Evaluate and revise
Step 12
SRC and principal
Put into full operation/ review OSR
to

Even if you are convinced that you should use Operation Self-Renewal Planbook, the following is suggested (approximate time needed - 1 hour):

1) Review STEP1 flowchart on page 27.
2) Fill in estimated time for completion of STEP 1 OSR P & D LOG.
3) Call in three to six people whose judgment you trust: (e.g., a teacher, a staff member, a student).
4) Briefly explain the purpose of OSR and ask them to take Questionnaire A.
5) Have your secretary score the questionnaires.
6) While the questionnaires are being scored, discuss the possible need and likely support for a planned process pointed toward meaningful change.
7) Review scores: do they support your judgment? If not, in what way do they differ?
8) If the results are negative, and you decide not to continue, fill out the OSR FEEDBACK QUESTIONNAIRE* and mail back with unused portion of the OSR PACKAGE.
9) If the results are positive, hand out copies of OSR Planbook to the group assembled and ask them to review it in detail. (The following materials have been deleted in the working copies of the Planbook:** you are free to delete additional material you may consider inappropriate.)
10) Set a time and plan for getting together to complete STEP 2. It is suggested that you let no more than three days elapse before getting together again.
11) The next meeting will take about an hour. A possible agenda is shown on the next page. You may want to hand this agenda out at the close of this meeting. Six copies are included in the Work-Kit.

* Part A -- see copies in Work Kit
(** See page 7, Volume IV - NOTE)

POSSIBLE STEP 2 REVIEWERS MEETING AGENDA

Suggested length of meeting: 1 hour.

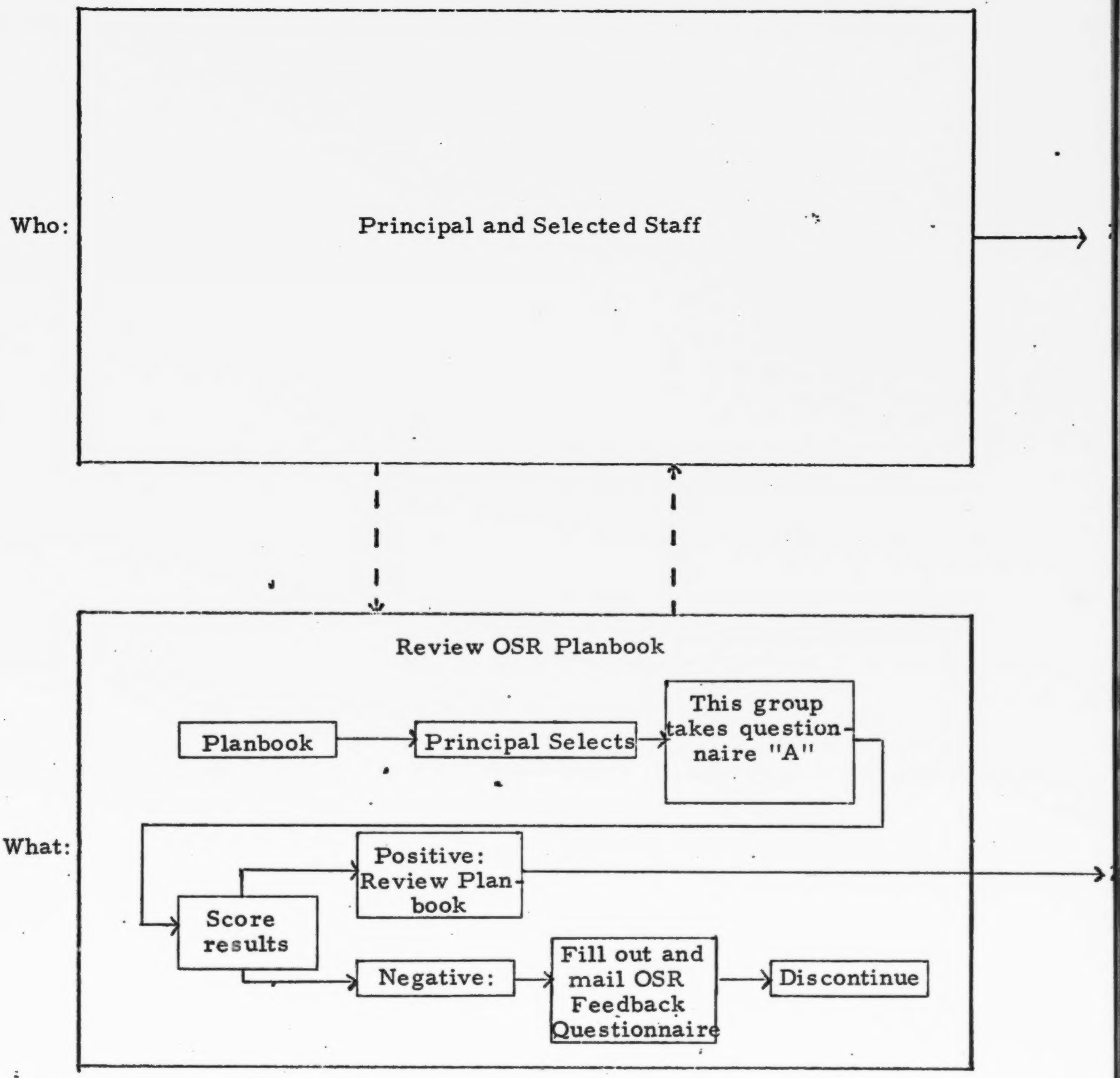
Chairman: The Principal.

1. Reviewers' reaction to OPERATION SELF-RENEWAL PLANBOOK.
2. Consideration of amount of time OSR is likely to require.
3. Consideration of actual costs involved in implementing OSR:
    a) Staff and Teacher time
    b) Student time
    c) materials costs
    d) other
4. Discussion of possible effect of OSR
    a) on Staff
    b) on Teachers
    c) on Students
    d) on Parents and community
    e) others
5. Recommendation of reviewers to the Principal: use or not use OSR Planbook?
6. Reviewers return Planbooks to Principal.
7. Adjourn.

ÓSR PROCESS PATTERN

PREPARE

STEP 1


Who:
Principal and Selected Staff
What:
Review OSR Planbook
Planbook
Principal Selects
This group takes questionnaire "A"
Score results
Positive: Review Planbook
Negative:
Fill out and mail OSR Feedback Questionnaire
Discontinue

STEP 2 is the last opportunity to weigh the appropriateness of using the Planbook in your school. When you proceed to STEP 3 you are commiting yourself to a process which will take time and energy, and which will raise expectations which can only be met effectively by the initiation of change projects and the incorporation of those projects which succeed into normal school life. Review STEP 2 Flowchart on page 31.

1) Meet with the reviewers at the appointed time and place.
2) Follow through on the STEP 2 Meeting Agenda provided, or your modification of it.
3) Consider the recommendation of the reviewers and make a decision.
4) If the decision is negative, fill out the OSR FEEDBACK QUESTIONNAIRE and mail back with the unused portion of the OSR PACKAGE.
5) If positive, make the following decisions:
    a) Size, composition, and manner of selection of the School Renewal Council (see p. 19).
    b) Who the OSR Manager will be (see p. 20).
    c) What grade level of students will be involved (see p.20).
    d) What the estimated schedule to complete through STEP 4 will be (fill in estimated time on OSR P&D LOG). (See p.20 .)
    e) What feedback process you will employ: "Self-Renewal Bulletin?" How often? By whom? Date of Assembly to present OSR to school? Announcements at regular intervals by teachers? (See p.22 , item 5.)
6) Implement the following:
    a) Call in designated OSR Manager and familiarize with OSR. Have Manager proceed with: process for establishing SRC; short announcement to community about OSR and SRC selection process; preparing to keep OSR P&D LOG up-to-date. (Fill in actual time STEPS 1 and 2.)

b) Establish meeting time and place for first SRC meeting.

c) Review agenda for first SRC meeting (possible agenda next page). Have OSR Manager distribute final agenda to SRC members after their selection.

POSSIBLE STEP 3 SRC FIRST MEETING AGENDA

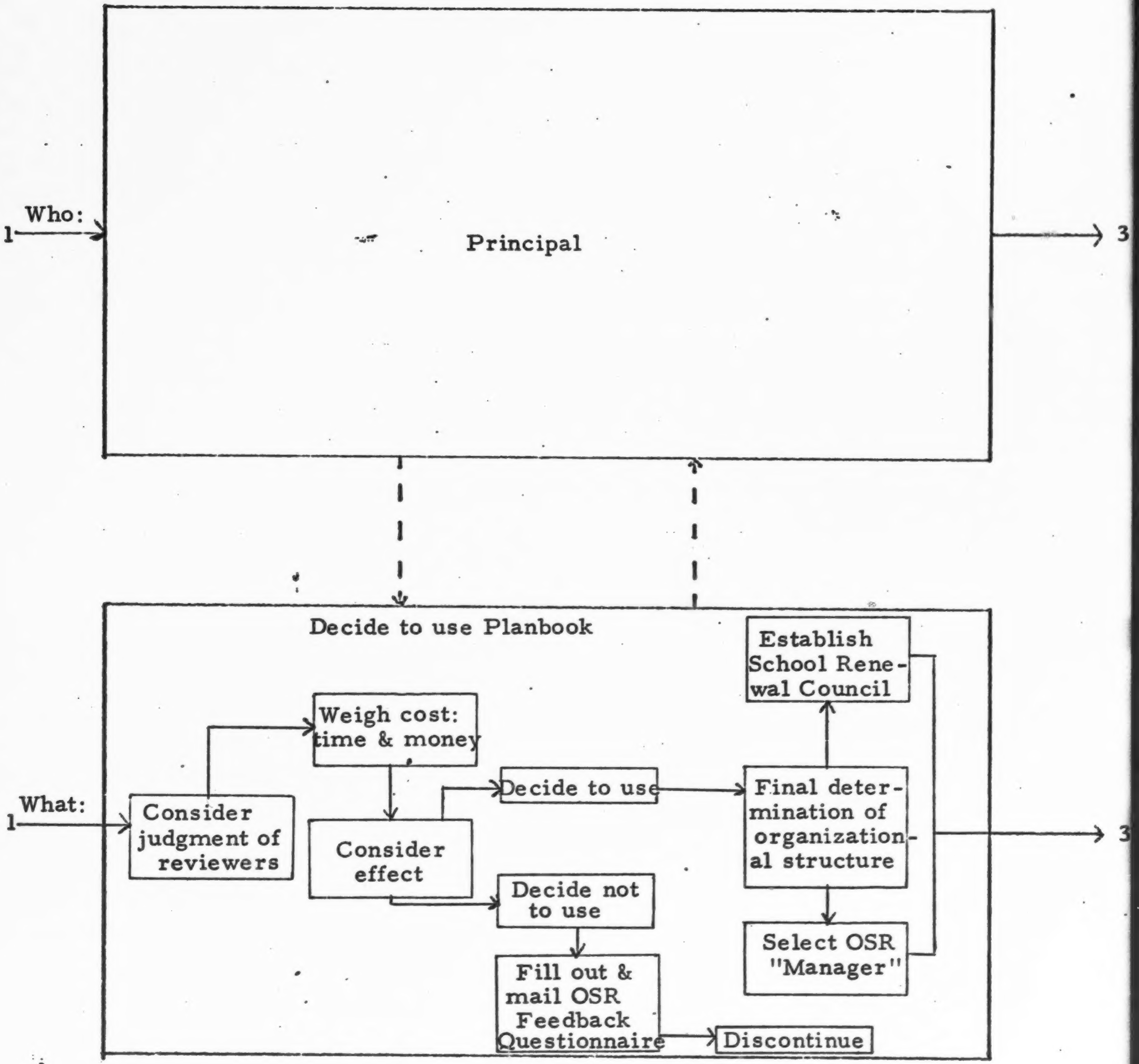
Suggested length of meeting: 1 1/2 hours.
Chairman: The Principal

1. Introduction of OSR to SRC members: by Principal.
    - a) need for change process
    - b) reviewers meeting results
    - c) mechanics of OSR
    - d) Ground Rules (see p. 21): anonimity, cooperative climate, follow-through, feedback.
2. Rules of Order for SRC meetings.
    - a) chairman
    - b) order of agenda
    - c) recording meeting results
    - d) notification of future meeting agenda, place, time
    - e) other
3. Review Concerns Inventory Questionnaire #1, (CIQ #1).
4. Adapt CIQ #1 to your school.
5. Preliminary discussion of timing and approach to presenting OSR to school.
6. Establish time of next SRC meeting.
7. Adjourn.

OSR PROCESS PATTERN

PREPARE

STEP 2



1
Who:
Principal
3
1
What:
Decide to use Planbook
Consider judgment of reviewers
Weigh cost: time & money
Consider effect
Decide to use
Decide not to use
Fill out & mail OSR Feedback Questionnaire
Discontinue
Final determination of organizational structure
Establish School Renewal Council
Select OSR "Manager"
3

STEP 3 introduces OSR to the group (SRC) that will be the principal instrument for adapting OSR to your particular school and will act as the representative resource in carrying it out. It is a critical STEP and should entail careful preparation. Make certain that the SRC understands both the purpose and procedures of OSR before proceeding to STEP 4.

1) Review STEP 3 flowchart on page 37.
2) Develop your own introduction to OSR. Give examples of the need for meaningful change from your school situation. Relate who reviewed OSR Planbook and the results of their taking Questionnaire A. (This may be written or oral preparation.)
3) Distribute copies of OSR master flow chart (from Work Kit) as you go over mechanics of OSR at the SRC meeting.
4) Go over Ground Rules carefully and make sure their importance is understood. You may want to prepare your own version of OSR Ground Rules for distribution to the SRC.
5) Determine the following with respect to Rules of Order for SRC Meetings:
    a. Chairman: you may want to remain as chairman of of the SRC, however you may be more effective if you let a teacher or staff member who is competent at handling group process serve this function on a permanent or rotating basis.
    b. order of agenda: could be traditional (i. e. minutes, old business, new business, etc.) or functional – order established by agenda.
    c. recording meeting results: it is suggested that the OSR Manager be secretary for SRC meetings, or at least be responsible for editing and distributing minutes. It may be wise to keep a "tape" record of meetings.
    d. notification of future meeting agenda, place, time: a regularized agreeable process should be adopted for these housekeeping details.
6) Review the Concerns Inventory Questionnaire # 1- Part I (p. 34)and prepare sufficient copies for SRC in the form which you determine would be most effective as a "draft." (There are 10 in Work Kit).

7) Prepare to lead preliminary discussion of timing and approach to presenting OSR to school. If yours is a large school and you have decided to use an OSR Forum (representative group), decide whether you or the SRC will determine how the Forum group is to be chosen.

8) Proceed with SRC meeting. Distribute Agenda for next meeting (p.36).

9) After meeting establish with OSR Manager schedule for completing CIQ #1.

OSR-Q1-I-1

☐

Questionnaire # 1 - Part I

OPERATION SELF-RENEWAL CONCERNS INVENTORY

Everybody has an opinion about everything that goes on in this school. This questionnaire is designed to put your opinions to work in helping to make this a better school. If we combine our skills, our knowledge, and our concerns we should be able to decide what changes are most important to us as students, teachers, administrators – and then we can develop projects which will help bring about those changes.

This questionnaire will assist in identifying those areas of school life where change is needed and possible. Part II of this questionnaire will be handed out in a week or so and you will then be able to say what kind of changes you think are needed.

Instructions:

1. In the box up in the right hand corner of this page:
    a. if you are a student put an S and your grade level (for example S6 if you are a student in the 6th grade, S11 if you are a high school junior.
    b. If you are a teacher, use a capital T.
    c. If you are on the administrative staff, use a capital A.
2. Please respond to the questionnaire as honestly as possible. No attempt will be made to discover individual opinions. We are interested in the total opinion of members of this school community.
3. Now go through each of the categories below: the first box provides an opportunity to indicate how serious you think the problem is – one check = somewhat serious, two checks = quite serious, three checks = very serious; the second box indicates the direction you think change ought to take — more or better = a + mark, less or different = a - mark.

A. Change in the classroom

✓	+or-	
		textbooks
		grades
		homework
		independent study

✓	+or-	
		independent projects
		group projects
		field trips
		teachers work harder

✓	+or-	
		student's work harder
		courses in:
		reading
		spelling
		writing
		arithmetic
		language
		job training
		pre-professional
		science
		social studies
		history of your people
		public speaking
		art
		drama
		music

✓	+or-	
		group discussions
		library work
		classroom furniture
		teacher understanding of:
		Indian language
		Indian culture
		Indian history
		teacher lectures
		student lectures
		guest speakers
		outside readings
		other:
		________________
		________________
		________________
		________________

B. Change in the non-classroom environment

✓	+or-	
		sports
		class schedules
		extracurricular activities like clubs, etc.
		school equipment
		counseling for jobs
		help with personal problems
		counselling for college
		maintenance of buildings
		food

✓	+or-	
		parent involvment
		school rules
		school buildings
		school transportation
		health services
		other:
		________________
		________________

C. Change in the dormitories (for boarding school students only)

✓	+or-	
		supervision
		hours
		dormitory buildings
		available snacks

✓	+or-	
		after school recreation
		dormitory rules
		other:
		________________
		________________
		________________

POSSIBLE STEP 4 SRC SECOND MEETING AGENDA

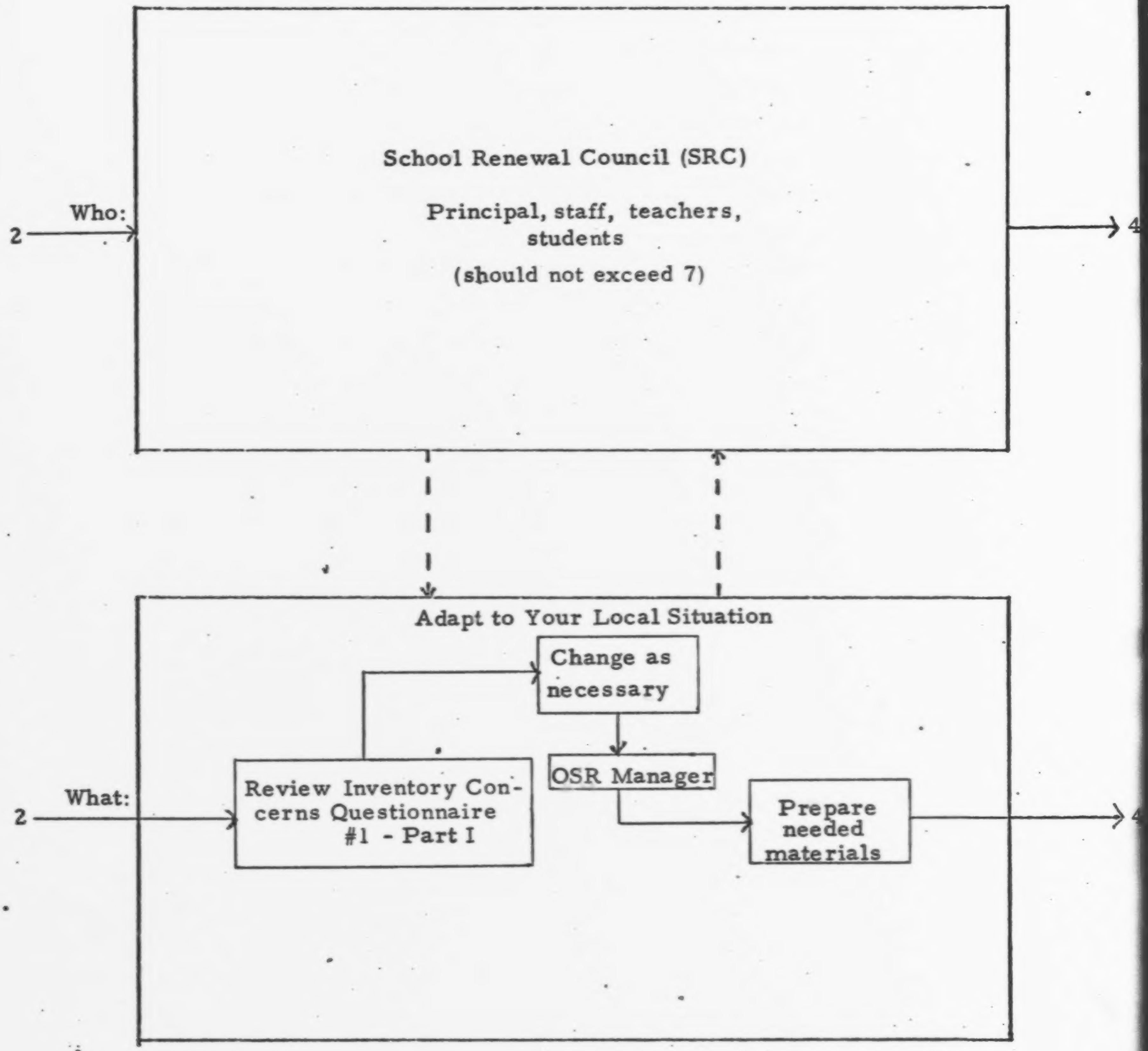
Suggested length of meeting: 1 hour, recess, 1 hour.

1. Discuss best way of presenting OSR to school:
    a. Purpose of OSR: what it can and cannot do for school
    b. How OSR will work: time schedule, mechanics, way in which school members will be involved.
2. Select OSR Assemble sub-committee to report back to SRC within a week.
3. Recess until time of sub-committee report.
4. OSR Assembly sub-committee report.
5. Final determination of method and time of presentation.
6. Establish time for next meeting.
7. Receive Agenda STEP 5 meeting.
8. Adjourn.

OSR PROCESS PATTERN

PREPARE

STEP 3


Who:
2
School Renewal Council (SRC)
Principal, staff, teachers, students
(should not exceed 7)
4
Adapt to Your Local Situation
What:
2
Review Inventory Concerns Questionnaire #1 - Part I
Change as necessary
OSR Manager
Prepare needed materials
4

STEP 4 introduces OSR to your entire school. It is important that the plan you and the SRC develop pay attention to the method of presentation as well as the content. An uninteresting assembly will hardly elicit enthusiastic support and participation.

1. Review STEP 4 flow chart on page 41.
2. Review possible STEP 5A SRC meeting agenda (page 39), revise, and give to OSR Manager to prepare for distribution before adjournment of STEP 4 meeting.
3. Give data reduction instruction sheet (page 40) to OSR Manager to prepare for compiling Questionnaire #1-Part I results.
4. Meet with SRC - follow STEP 4 meeting agenda.

POSSIBLE STEP 5 MEETING AGENDA

Suggested length of meeting: 1-1/2 hours

1. Consider results of Questionnaire #1-Part I as presented by OSR Manager.
2. Suggest appropriate form of Questionnaire #1-Part II.
3. Set time for giving of Part II.
4. Establish time for next meeting.
5. Adjourn.

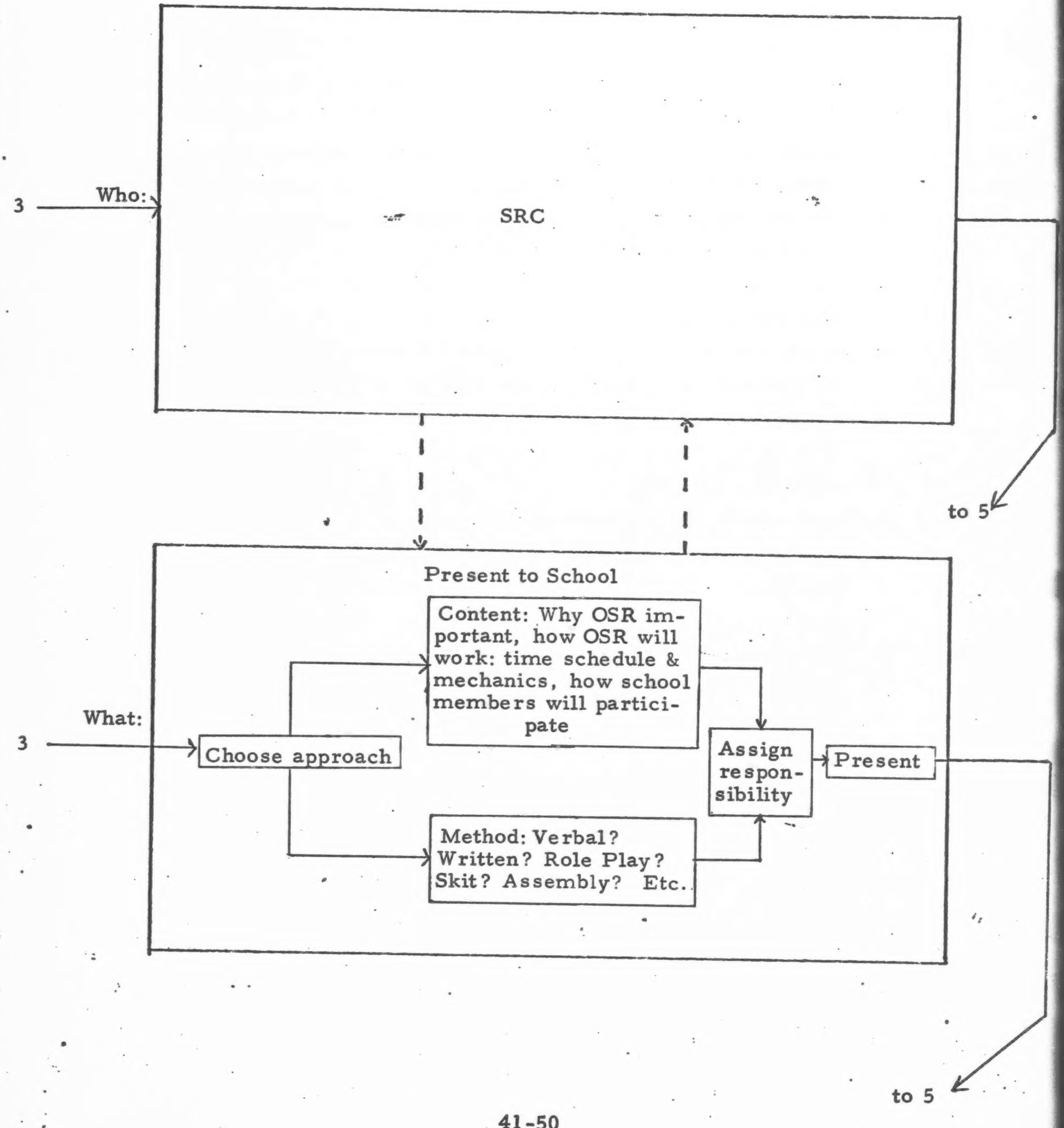
DATA REUDCTION INSTRUCTION SHEET

1. Use a blank Questionnaire #1-Part I to compile number of checks that are plus and number of checks that are minus for each box, counting each check as one.
2. Prepare a report in which you rank order the major categories (A - Classroom, B - Non-Classroom, and C - Dormitories) in terms of which has the most total number of checks, to the least.
3. Within each category rank order each item from the most number of checks to the least, indicating the total number of plus checks and the number of minus checks for each.

OSR PROCESS PATTERN

PREPARE

STEP 4


3
Who:
SRC
to 5
Present to School
3
What:
Choose approach
Content: Why OSR important, how OSR will work: time schedule & mechanics, how school members will participate
Method: Verbal? Written? Role Play? Skit? Assembly? Etc.
Assign responsibility
Present
to 5

STEP 5 takes an inventory of concerns in two steps. The first step singles out which areas need changing the most, in the estimation of members of the school community. Then there is an opportunity to find out the nature of the concerns in detail.

1. Review STEP 5 flow chart on page 47.
2. Have OSR Manager give out Questionnaire #1-Part I as soon after the assembly as possible: copies to teachers for them to take and to give to their students, copies directly to administrative staff members.
3. The OSR Manager: collect Part I within twenty-four hours of distribution, and tabulate results.
4. Review draft report with OSR Manager and develop final form which will inform SRC Committee.
5. Develop draft form of Part II of Questionnaire #1 (see example on next page) and distribute prior to STEP 5 SRC meeting.
6. Review STEP 6 meeting agenda (page 45), revise, and give to OSR Manager to prepare for distribution before adjournment of STEP 5 meeting.
7. Meet with SRC and follow STEP 5 agenda.
8. Have OSR Manager proceed with Part II questionnaire.
9. The OSR Manager: collect Part II within twenty-four hours of distribution, tabulate results in same fashion as Part I, summarize statements of problem concerns, and give draft report to Principal.
10. Principal reviews draft, revises as appropriate and has distributed to SRC with next item (see page 48).
11. Review Questionnaire #2 development instructions (page 46) and produce draft to be attached and distributed with draft report of Part II results.

OSR-Q1-II-1

EXAMPLE

Questionnaire #1 - Part II

OPERATION SELF-RENEWAL CONCERNS INVENTORY

This questionnaire is based on the results of Part I which you recently took. The way the three categories and the items are laid out starting from the top represents the order of their importance in the need for change.

Instructions:

1. Fill in the box above as you did Part I.
2. Then respond to the material below as indicated:

C. Change in the Dormitories: This is____, is not____, the most important area needing change in this school.

a. Supervision: is too strict____, too little_____, not fair_____, not enough_____, other:______________________________
Comments:______________________________
______________________________.

b. Dormitory Buildings: are inadequate____, too noisy_____, overcrowded_____, need to be decorated______, other______
__________.
Comments: ______________________________
______________________________.

A. Change in the Classroom: This is____, is not_____, the most important area needing change in this school.

a. Courses: needing change are: public speaking_____, job training_____, pre-professional______.
Comments:______________________________
______________________________.

b. Textbooks: are not interesting____, too difficult______, worn out____, don't teach useful things_____.
Comments:______________________________
______________________________.

B. Change in the non-classroom environment: This is_____, is not____, the most important area needing change in this school.

a. Sports: we need more variety____, less emphasis on competition_____, better equipment____, more inter-school contests_____.

Comments: ____
____.

b. Parent involvement: parents should know more about what we're learning in school_____, parents should help out in the classroom and dormitories______, parents should help with sports events______.

Comments: ____
____.

POSSIBLE STEP 6 SRC MEETING AGENDA

Suggested length of meeting: 1-1/2 hours.

1. Discuss report of Part II results.
    a. What are the real problems?
    b. Do the problems seem to be soluble in terms of possible projects? Costs? Energy of people available?
    c. What is the best way of stating the problem in terms of asking school community members to help identify or invent projects that would help solve areas of real concern.
2. Discuss priority ranking
    a. Which problems are the most important?
    b. Which problems are likely to be able to be solved quickly?
    c. Develop a list in which the most important problems which can be solved immediately at minimum cost can be presented to the school community for their help in identifying project remedies.
3. Adopt #2 Questionnaire for use.
4. Receive Agenda STEP 7 meeting.
5. Establish time for next meeting.
6. Adjourn.

QUESTIONNAIRE # 2 DEVELOPMENT INSTRUCTIONS

This questionnaire takes the form of a simple problem statement and space for project suggestions which will elicit creative response from members of the school community. An example is suggested below:

OPERATION SELF-RENEWAL PROJECT SUGGESTION

Questionnaire # 2

Priority Number: 3

Problem Area: The classroom--need for public speaking course

Problem Statement:

A number of students and teachers suggested that one of the most important new courses needed is one in public speaking that will help students to express themselves better and give them increased self-confidence in front of groups.

Project Suggestions:

Project Name Project Speakwell

Suggested duration of project 6 wks Suggested starting date 1/5/70

Teachers or students needed to work on project English Teacher

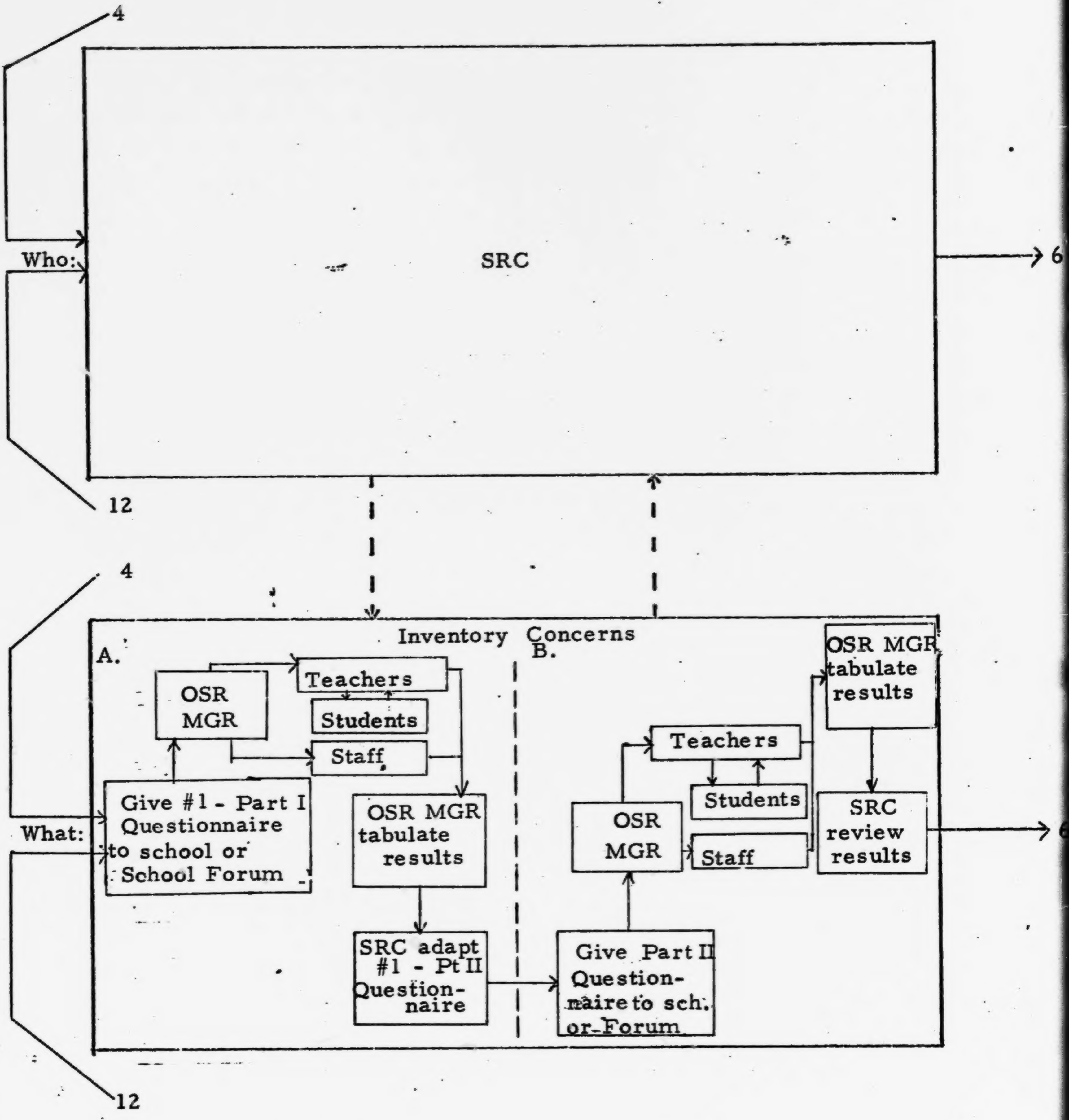
Do you think there will be any cost involved No

Project Description: Develop a public speaking group as an extra-curricular activity after school. Perhaps we could get a debating group going and have competition of other schools.

OSR PROCESS PATTERN

DEVELOP

STEP 5


4
Who:
SRC
6
12
4
Inventory Concerns
A.
OSR MGR
Teachers
Students
Staff
Give #1 - Part I Questionnaire to school or School Forum
What:
OSR MGR tabulate results
SRC adapt #1 - Pt II Questionnaire
B.
OSR MGR tabulate results
Teachers
Students
OSR MGR
Staff
SRC review results
6
Give Part II Questionnaire to sch. or Forum
12

STEP 6

STEP 6 focuses on narrowing down the concerns revealed in Part I and Part II of Questionnaire #1 into manageable form, developing a priority ranking of concern or problem areas which seem soluble, and developing a RENEWAL PROJECT SUGGESTION Questionnaire #2 for soliciting remedial project suggestions.

1) Make sure when you are reviewing and consolidating Questionnaire #1, Part II, results that you give fair representation to concerned criticism which you may find disquieting.
2) Consider alternatives, constraints in terms of personnel and dollars, possible benefits - in each problem area so that you can take an active part in the discussion at STEP 6 SRC meeting.
3) Review STEP 7 Meeting Agenda (page 49), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 6 meeting.
4) Meet with SRC and follow STEP 6 agenda.

POSSIBLE STEP 7 MEETING AGENDA

Suggested length of meeting: 1-1/2 hours.

1) Discuss report on RENEWAL PROJECT SUGGESTIONS received prior to meeting.

2) Develop ranking of PROJECT SUGGESTIONS and combine similar suggestions. Discard those that are clearly impossible to carry out.

3) Review and revise, if necessary, PROJECT DIAGNOSTIC SHEETS for use at next meeting.

4) Receive Agenda STEP 8 meeting.

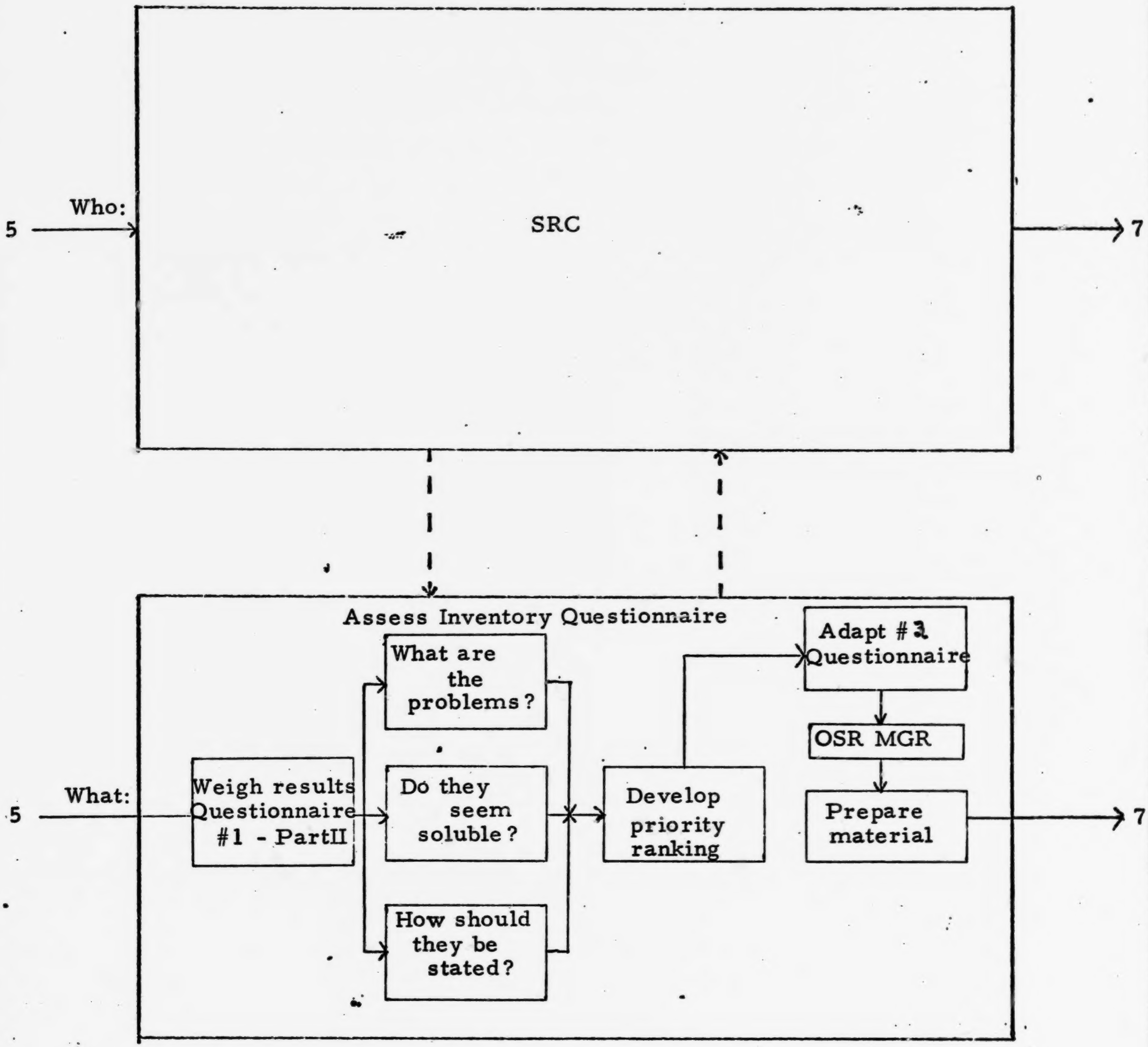
5) Establish time for next meeting.

6) Adjourn.

OSR PROCESS PATTERN

DEVELOP

STEP 6


Who:
5
SRC
7
What:
5
Assess Inventory Questionnaire
Weigh results Questionnaire #1 - PartII
What are the problems?
Do they seem soluble?
How should they be stated?
Develop priority ranking
Adapt #2 Questionnaire
OSR MGR
Prepare material
7

STEP 7 takes project suggestions, collates them, refines them, and provides them with an initial priority ranking.

1) Review STEP 7 Flowchart.
2) Have OSR Manager prepare and distribute revised Questionnaire #2 - RENEWAL PROJECT SUGGESTIONS immediately after STEP 6 meeting.
3) The OSR Manager should collect Questionnaire #2 within twenty-four hours of its distribution, do an initial sort and rank ordering and prepare a draft report for the Principal to review.
4) Review and revise the draft report if necessary and have OSR Manager prepare copies for distribution to SRC members with the next item.
5) Review the PROJECT DIAGNOSTIC SHEET (page 52-53), and have OSR Manager prepare copies for distribution with report of RENEWAL PROJECT SUGGESTIONS.
6) Review STEP 8 meeting agenda (page 54), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 7 meeting.
7) Meet with SRC and follow STEP 7 agenda.

PROJECT DIAGNOSTIC SHEET

Instructions:

1. Enter value factor in Column 1, A and B.
2. If re-allocated funds, enter value factor in Column 2, A and B.
3. Follow through steps indicated in C.
4. Enter Cost-Effectiveness Index (CEI) in box on next page.

	Value Factor (VF) Range	1 VF Proposed Project	2 VF Lost Service
		V	V'
A. Problem Area 1. Perceived need determine from location rank order list (top of list=10, bottom-0)	0 to 10		
B. Project Suggestion 2. Constraints Assess constraints total on basis of consideration of real factors such as acceptability to extra-school authorities, staff, teachers, parents, community members, also time, space.	0 to -10		
3. Benefits from change a. Student achievement-anticipated likelihood that project will materially affect student academic achievement.	0 to 10 x .7		
b. Student satisfaction-anticipated likelihood of improvement in attitude of students.	0 to 10 x .3		
c. Improved staff and teacher attitude and effectiveness	0 to 5		
4. Human Resources available Are there personnel available who will expend the energy, and have the skill to carry out the project.	0 to 5		
	V factor total		

C. Cost Efficiency Index (CEI)

1. Re-allocated funds

    a. If project were to be permanently adopted, what is likely to be cost per pupil served

    F factor = ________

    Z factor __________

    b. Multiply 1/F x V =

    c. To determine trade-off loss, develop V' factor using column 2 for service being dropped by reallocation of funds.

    d. What is cost per pupil served of service being dropped?

    F' factor = ________

    e. Multiply 2/F' x V'= Z factor __________

    f. Z-Z' = CEI enter below

2. New Funds

    a. Multiply F factor step C.1.a. above by 1.5 if finds are available but unallocated

    N factor = ________

    b. Multiply: 1/F x N = CEI enter below

    c. Multiply F factor step C.1.a. by 4 if funds unavailable but possible to obtain

    N' factor = ________

    d. Multiply: 1/F x N' = CEI enter below

Project CEI ☐

POSSIBLE STEP 8 MEETING AGENDA

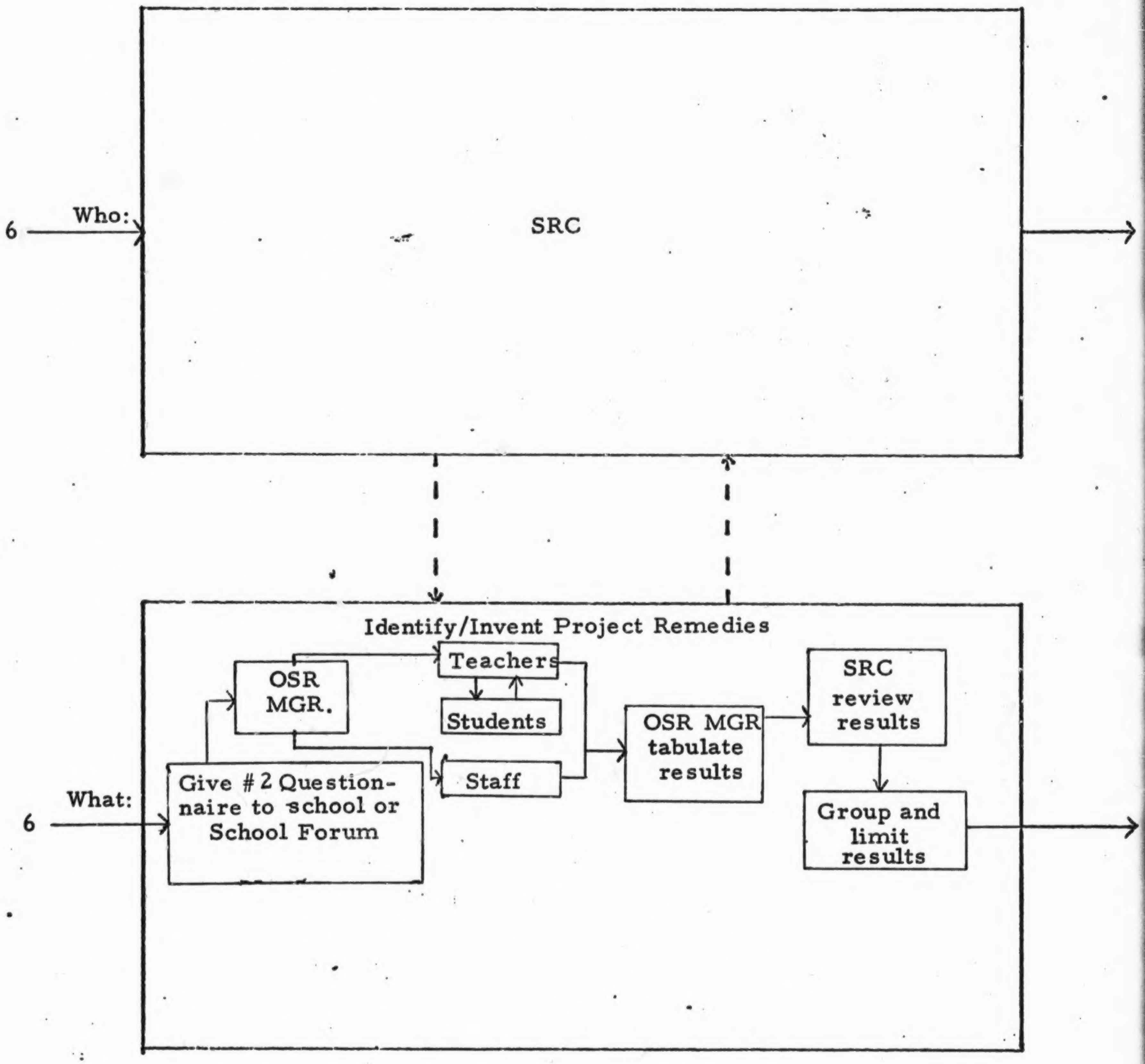
Suggested length of meeting: as needed

1) Develop a cost-effectiveness index for each proposed project.
   Rule out those that are clearly unfeasible.
2) Develop a priority ranking for all proposed projects.
3) Receive ANNOUNCEMENT OF OSR PILOT PROJECT form for review.
4) Receive Agenda STEP 9 meeting.
5) Establish time for next meeting.
6) Adjourn.

OSR PROCESS PATTERN

DEVELOP

STEP 7


6
Who:
SRC
Identify/Invent Project Remedies
OSR MGR.
Teachers
Students
Staff
6
What:
Give # 2 Questionnaire to school or School Forum
OSR MGR tabulate results
SRC review results
Group and limit results

STEP 8

STEP 8 is the most critical STEP in the entire process of Operation Self-Renewal. In it, change projects are scrutinized in terms of both needs, and real constraints such as time, space, available personnel, outside influence, and most critical of all - available funds.

1) Review STEP 8 Flowchart with care. (page 60)
2) Review ANNOUNCEMENT OF OSR PILOT PROJECT form (pages 57-58), revise if necessary, and give to OSR Manager to prepare for distribution at STEP 9 meeting.
3) Review STEP 9 meeting agenda (page 59), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 8 meeting.
4) Meet with SRC and follow STEP 8 agenda.

ANNOUNCEMENT OF OSR PILOT PROJECT

PROJECT NAME: DATE:

PRIORITY NUMBER: STATUS: NEW ☐ REVISED ☐

BEGIN DATE: DURATION: REVIEW DATE:

PROJECT COORDINATOR:

WHO IS INVOLVED IN PROJECT?

EXPECTED COST:

SOURCE OF FUNDS:

DESCRIPTION OF PROJECT:

** FOR OFFICE USE **

RESULTS: Permanently Adopted? Yes ☐ No ☐ If no, because:

ACTUAL COST:

IF YES: Final Project Description as Adopted:

ANNOUNCEMENT OF RESULTS OF OSR PILOT PROJECT

PROJECT NAME: DATE:

PRIORITY NUMBER:

DESCRIPTION:

DROPPED BECAUSE:

REVISED AS FOLLOWS:

PERMANENTLY ADOPTED IN THE FOLLOWING FORM:

POSSIBLE STEP 9 MEETING AGENDA

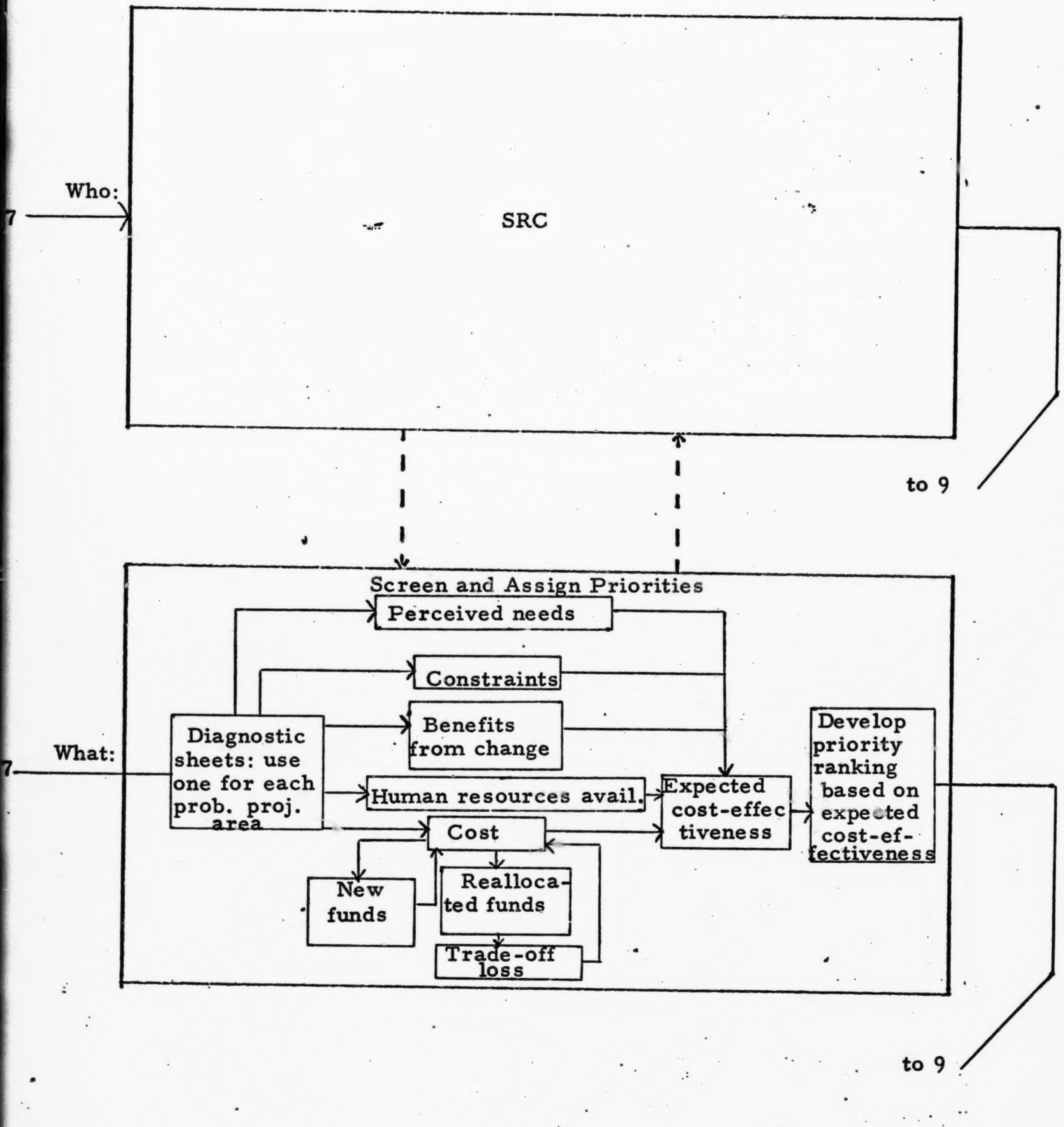
Suggested length of meeting: as needed

1. Review and decide on final ANNOUNCEMENT OF OSR PILOT PROJECT form.
2. Project by project, starting with highest CEI:
   a. Choose Project Coordinator.
   b. Develop project plan.
   c. Briefly reconsider cost, discuss and refine.
   d. Assign writing of final project description.
   e. Determine begin, review/revise, and final decision date on each project.
3. Review overall state of Operation Self-Renewal in terms of the specific projects' format.
4. Make final determination on projects to be begun.
5. Establish time for next meeting.
6. Receive agenda STEP 10 meeting.
7. Adjourn.

OSR PROCESS PATTERN

DEVELOP

STEP 8


Who:
7
SRC
to 9
What:
7
Screen and Assign Priorities
Perceived needs
Constraints
Benefits from change
Diagnostic sheets: use one for each prob. proj. area
Human resources avail.
Cost
New funds
Realloca-ted funds
Trade-off loss
Expected cost-effectiveness
Develop priority ranking based on expected cost-effectiveness
to 9

STEP 9 is the final stage in developing the "menu" of pilot projects to be implemented.

1) Review STEP 9 Flowchart. (page 63)
2) Determine if there are any projects which you will not entertain, and remove them from consideration.
3) Consider possible Project Coordinators: may or may not be SRC members. Prior consultation with them may be appropriate.
4) Review STEP 10 meeting agenda (page 62), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 9 meetings.
5) Meet with SRC and follow STEP 9 agenda.

POSSIBLE STEP 10 MEETING AGENDA

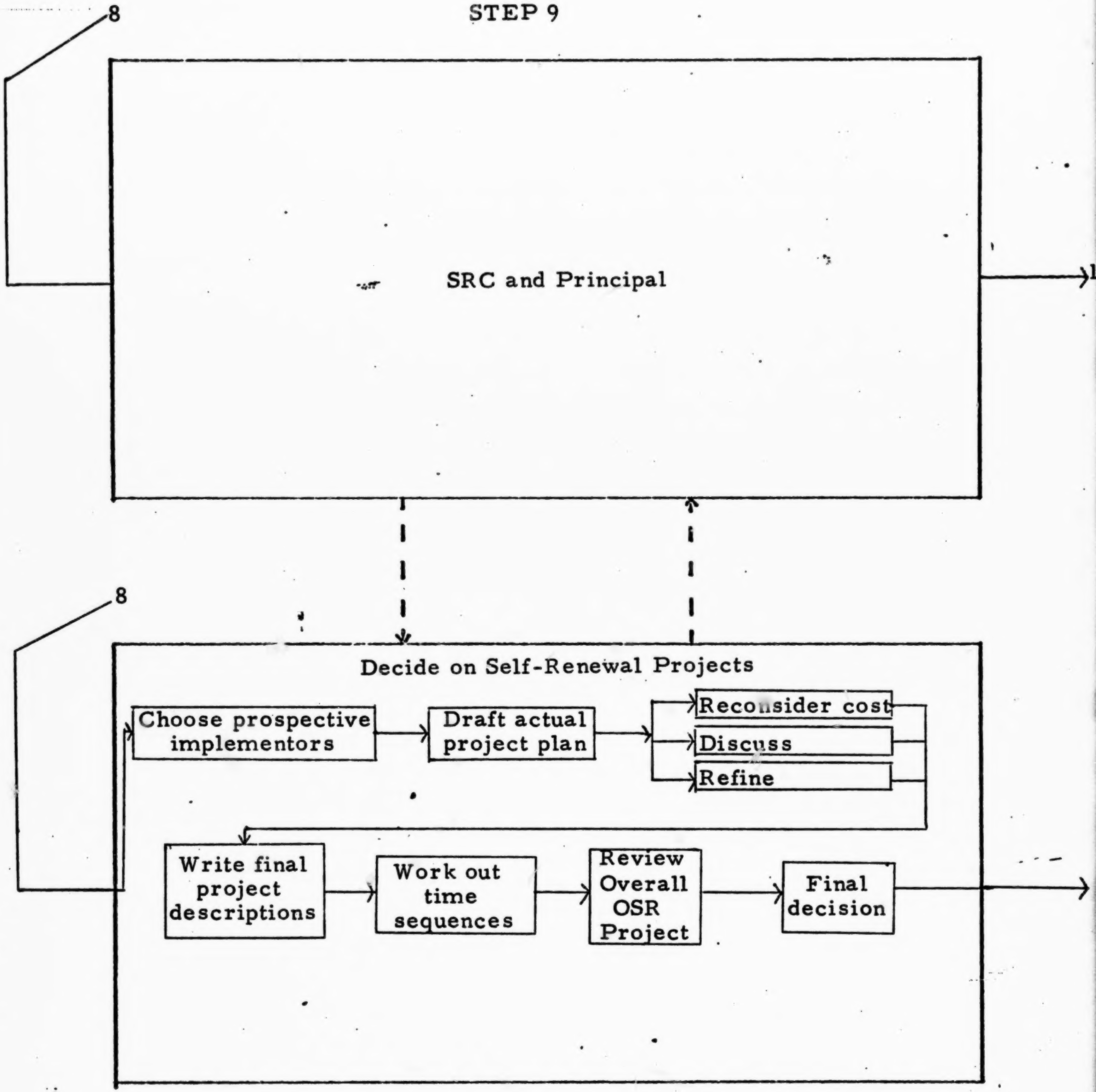
Suggested length of meeting: 1 1/2 hours.

1. Consider the problem of gaining cooperation from those who will be affected project by project.
2. Assign members of SRC to consult with those who can help to implement each project successfully.
3. Determine how best to announce projects being implemented under OSR: assembly? written PROJECT ANNOUNCEMENTS? Bulletin? etc.
4. Establish time for next meeting.
5. Receive PROJECT FEEDBACK QUESTIONNAIRES for review.
6. Receive agenda STEP 11 meeting.
7. Adjourn.

OSR PROCESS PATTERN

ACT

STEP 9


8
SRC and Principal
1
8
Decide on Self-Renewal Projects
Choose prospective implementors
Draft actual project plan
Reconsider cost
Discuss
Refine
Write final project descriptions
Work out time sequences
Review Overall OSR Project
Final decision

STEP 10 is principally concerned with the strategy for introducing the implementation of OSR Projects.

1) Review STEP 10 Flowchart. (page 67)
2) Look over projects so you can take leadership in discussing implementation problems.
3) Have OSR Manager develop draft PROJECT FEEDBACK QUESTIONNAIRES (see Page 65) which after you review can be prepared for distribution to the SRC end of STEP 10 meeting.
4) Review STEP 11 meeting agenda (page 66), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 10 meeting.
5) Meet with SRC and follow STEP 10 meeting agenda.

DEVELOPING PILOT PROJECT FEEDBACK QUESTIONNAIRE

This instrument should be designed to elicit honest and anonymous response to the effect of each project on all those involved. It should give them an opportunity to indicate that they wish the project: dropped, left as is, revised and further tested (with their suggestions for revision), continued further.

POSSIBLE STEP 11 MEETING AGENDA

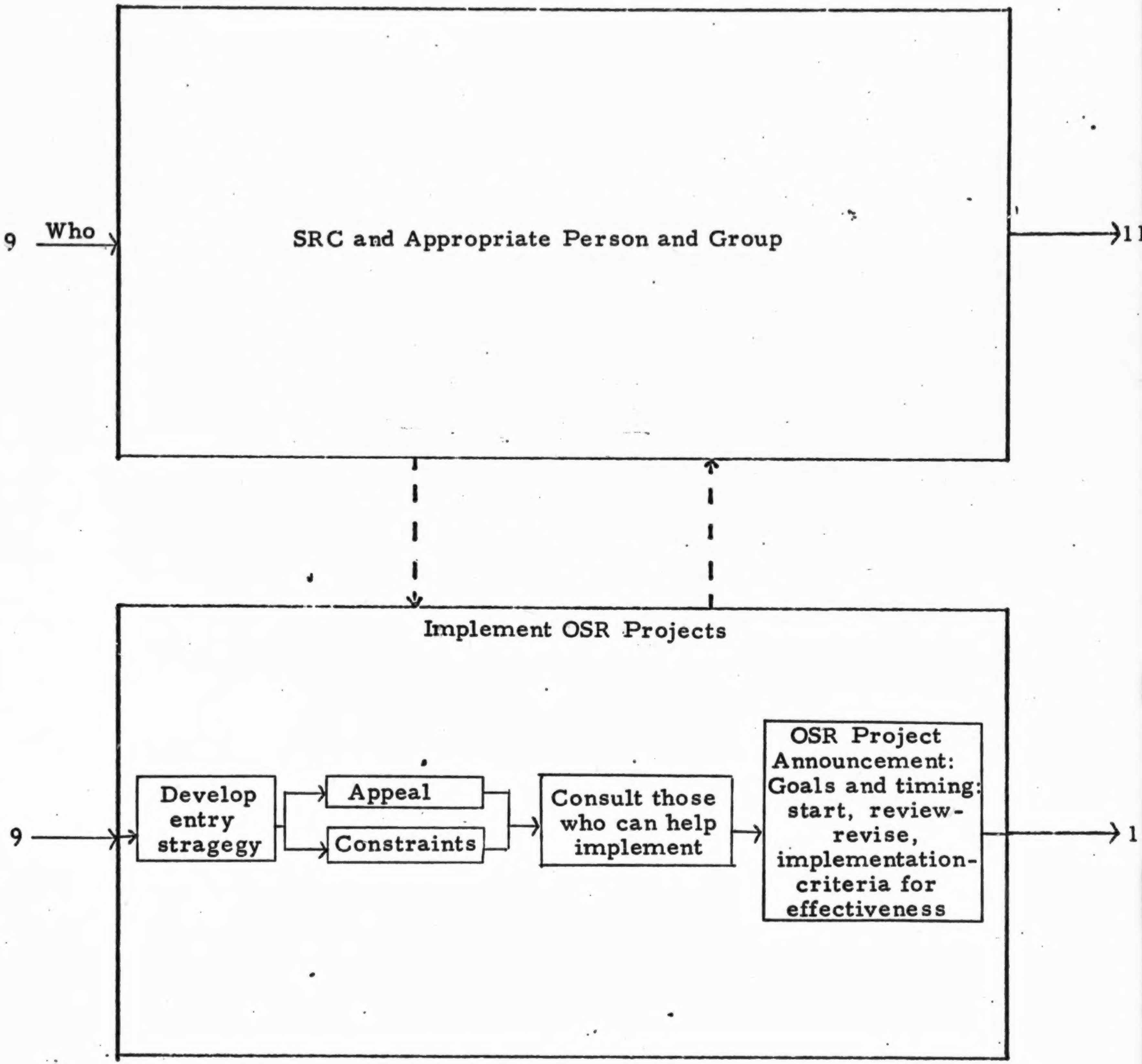
Suggested length of meeting: as needed.

1. Complete revision of PILOT PROJECT FEEDBACK QUESTIONNAIRES (PPFQ) for each project.
2. Recess
3. Review tabulated results of PPFQ with each Project Coordinator and take action as appropriate.
4. Receive STEP 12 meeting agenda.
5. Establish time for next meeting.
6. Adjourn.

OSR PROCESS PATTERN

ACT

STEP 10


9
Who
SRC and Appropriate Person and Group
11
Implement OSR Projects
9
Develop entry stragegy
Appeal
Constraints
Consult those who can help implement
OSR Project Announcement: Goals and timing: start, review-revise, implementation-criteria for effectiveness
1

STEP 11

STEP 11 involves a careful review of each project in terms of user reaction, for further revision and testing, dropping, or incorporating the pilot project into normal school processes.

1. Review STEP 11 flow chart. (page 70)
2. Review STEP 12 meeting agenda (page 69), revise, and give to OSR Manager to prepare for distribution to SRC before adjournment of STEP 11 meeting.
3. Meet with SRC and follow STEP 11 agenda.

POSSIBLE STEP 12 MEETING AGENDA

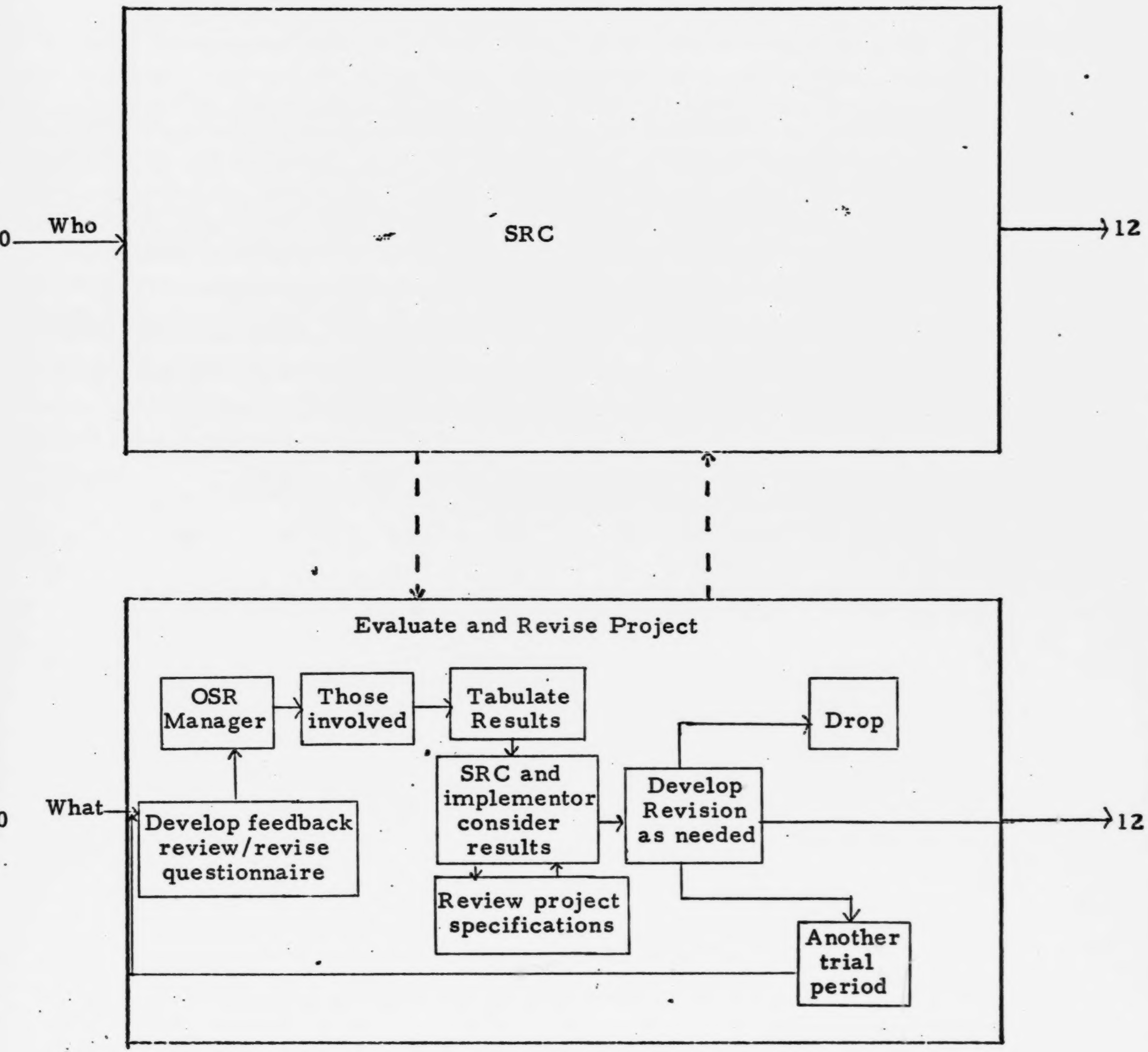
Suggested length of meeting: as needed.

1. Take each project and see if it needs to be restated in long range terms.
2. Using PROJECT DIAGNOSTIC SHEETS, recalculate CEI in terms of actual experience (in C. 1. e use 1/F'=V'). Include the Project Coordinator in these discussions.
3. Determine whether permanent feedback monitoring process is needed, and make decision whether should be put into full integrated operation.
4. When Project review and determination completed, review entire OSR operation; fill out and mail OPERATION SELF-RENEWAL FEEDBACK QUESTIONNAIRE; revise OSR process pattern and materials as needed. Establish schedule for next cycle of OSR.
5. Adjourn.

OSR PROCESS PATTERN II

ACT

STEP 11


0
Who
SRC
12
Evaluate and Revise Project
OSR Manager
Those involved
Tabulate Results
Drop
0
What
Develop feedback review/revise questionnaire
SRC and implementor consider results
Develop Revision as needed
12
Review project specifications
Another trial period

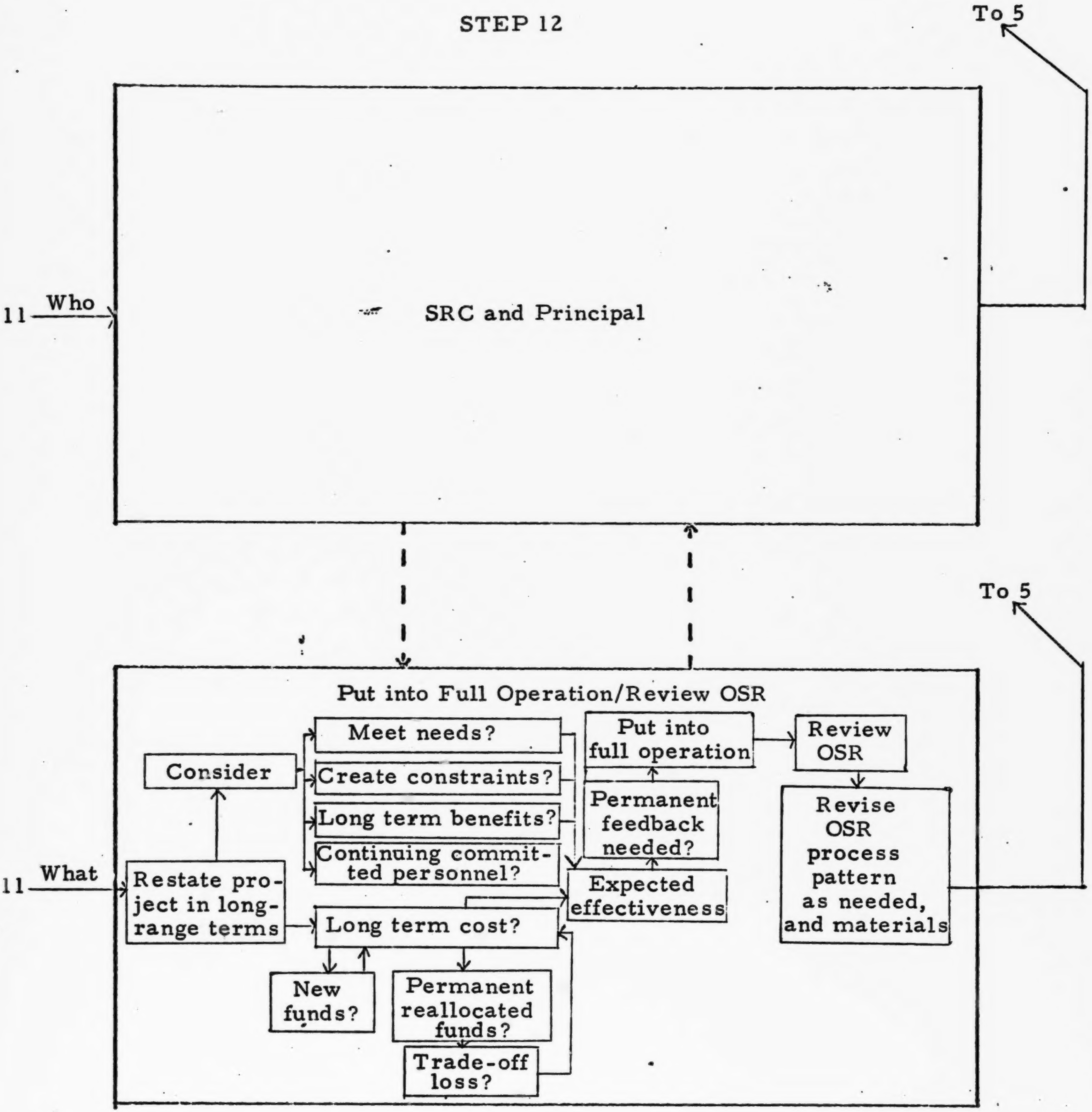
STEP 12 completes this cycle of OSR. Each project is tested for its realistic cost-effectiveness after the trial period and a determination is made as to its disposition.

1) Review STEP 12 Flowchart. (page 72)
2) Have OSR Manager distribute OSR FEEDBACK QUESTIONNAIRES to members of SRC.
3) Have OSR Manager prepare sufficient copies of the PROJECT DIAGNOSTIC SHEETS for the final meeting.
4) Determine how final decisions are to be made on project disposition and make this decision-making process clear in advance of STEP 12 meeting.
5) Meet with SRC and follow STEP 12 agenda.

OSR PROCESS PATTERN II

ACT

STEP 12


To 5
11
Who
SRC and Principal
To 5
Put into Full Operation/Review OSR
11
What
Restate project in long-range terms
Consider
Meet needs?
Create constraints?
Long term benefits?
Continuing committed personnel?
Long term cost?
New funds?
Permanent reallocated funds?
Trade-off loss?
Expected effectiveness
Permanent feedback needed?
Put into full operation
Review OSR
Revise OSR process pattern as needed, and materials

TOWARD A CONCEPTUAL ARCHITECTURE OF A SELF-RENEWING SCHOOL SYSTEM

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This paper presents an attempt to think through, systematically, the kind of school system which the Cooperative Project for Educational Development (COPED) envisions. It starts with basic social theory and develops concepts for the structure and processes needed to insure self-renewal. The concepts that emerge have considerable relevance for the processes of consultation and intervention which will bring about this kind of system, but the focus here is on how the end-product will look and how it will operate.

SYSTEM AND ROLE THEORY

1. Every social system is composed of interlocking positions and interacting roles. Among the positions in a school system are those of parent, board member, superintendent, principal, teacher, caretaker, and pupil. Each position requires role-performance in relation to what persons in other roles expect and do.

2. Smaller systems are either loosely or more tightly integrated within larger social systems. Thus a single school is part of a city school system, and the city school system is itself part of county, state, and federal educational operations. The schools are parts within other systems such as city government; economic and tax structures; and activities of state, national, and world organizations. When one part of a system changes, it produces strain at the interfaces of interaction with other parts until the other parts have adapted to the change.

3. As roles interact within a subsystem, and as parts interact within larger systems, they are reciprocally modified toward a working equilibrium. The roles and parts do not change equally. Those lower in any hierarchy of power and prestige adapt-to-conform more than do the higher levels. Some parts of the culture, such as the ritualistic and sacred activities, change less than do others, notably the technological.

4. Social systems tend to be stable and homeostatic; after minor disturbances they return to an equilibrium approximating their state before the unsettlement. A chronic disillusionment of reformers is that their success proves only temporary and has fewer good consequences than they expected. "Clean-up" campaigns in city politics or "new broom" effects of a new school superintendent illustrate the thesis. Some behavioral scientists argue that social systems are only self-perpetuating; they question whether systems can ever become characteristically innovative, growing, and self-renewing.

5. Social systems are generally hierarchical, with level of prestige, power, and responsibility. The higher-level roles are more satisfying to occupants and offer more freedom for self-actualization. Hence, need for change is less apparent to persons at or near the top of the system.

Schools, in one respect, differ from most other hierarchical institutions. Teaching is a profession and teachers often are given a high degree of autonomy within their classrooms. They are less closely supervised by superiors than are factory operatives or sales clerks.

Some innovations can easily be introduced by any teacher. The classroom, however, is a part of larger social systems which design the curriculum, the building, the working schedule, the assignment of pupils, the pay scales, the equipment, the forms of reporting, and many other factors conditioning the teaching process. The teacher commonly feels as helpless to influence these larger social systems as would a subordinate in any other large organization.

6. The structures of a system largely determine the patterns of interaction which take place within it; and these, in turn, form the attitudes of participants. This is the S P A sequence—from the situation (S) to the processes of social behavior (P) to the consequent attitudes (A). The habits, beliefs, and sentiments which arise within a system (religious, political, commercial, family) have been formed by experiences which have been shaped by the prevailing institutions. If a society be patriarchical, male-dominated, racially segregated, Moslem, and pastoral, its structural characteristics will affect the behaviors of adults and children in ways which produce generally congruent attitudes. Even if some members find life unhappy, they are likely to believe that their particular culture is better than any other and that it cannot readily be changed. They live resigned, if not satisfied.

SOURCES OF CHANGE

7. While either internal or external forces or both together can effect change in a social system, the usual congruence of member attitudes with the traditional ways of operating (Thesis #6) means that most change usually is initiated by outside impact rather than internal dissatisfaction. Racially segregated schools have been slow to change, even under the impact of Supreme Court edicts, the economic pressure of federal aid, and active movements for racial equality. Scientists and mathematicians may have been dissatisfied with public school curricula and performance in these disciplines, but not until the first Sputnik symbolized a contest with the U.S.S.R. did the schools change their programs.

8. The rapid advance of the scientific and technological sectors of our society creates stress on many interfaces where they impinge on slow-changing institutions. The impact on education has been manifold. Accelerating scientific advance has brought the "explosion of knowledge" which forces revision of curricula. Technological changes have eliminated some traditional occupations and created demands for new kinds of training. Rapid communication and transportation have made the ethnocentric curriculum of American schools an anachronism. New opportunities are presented to teachers by new media: films, projectors, tape-recorders, kinescopes, T.V. and closed circuit T.V., microfilm, computers, and other instruments. As technology has raised standards of living, it has also made college education economically possible for more pupils and has changed their secondary school demands. A more subtle influence arises from the conflict between prescientific and scientific methods of thought in certain areas of our culture.

9. While internal change-influences are less potent than the contextual pressures, they are still important and occasionally become the main source of an innovation. Every participant in a social system experiences some conflict between his personal needs and the role-demands of his position in the system. When these become intense and shared by many persons, they generate reforms or rebellions. No institution accords perfectly with the values of its members. What seems to be inertia may be rather what Lewin has called a "quasi-stationary equilibrium" in which forces for and against a specific change are fairly evenly balanced. Change may be brought about either by increasing the forces favoring change or by decreasing the resistance to change. School board members, superintendents, curriculum specialists, supervisors, guidance counselors, principals, teachers, parents, custodians, and pupils would each welcome certain changes. They are apt not to express these desires for change. They may fear that frank presentation of dissatisfaction could threaten them with criticism, reprisal, or loss of position. They may distrust their

own impluses ("Who am I to make suggestions to all these wise, experienced, powerful others?"). They may suppose that their suggestions for change will be interpreted as "rocking the boat" or "trouble-making" or presumptuousness. Hence, there remains an unexpressed potential readiness for change which can occasionally break through in surprising demonstrations. Because the discontent has not been openly aired and examined, it accumulates and emerges, sometimes in blind, passionate revolt. So long as the explosions are individual and isolated, the system handles them by suppression or expulsion. In the rare instances when many individuals join together in a protest action, the system has to adapt.

10. Most innovations come to be adopted through diffusion. The original innovating person or institution must have responded to unusual pressures and opportunities. Later, others hear about the new ideas or programs. Sociologists distinguish a two-step process by which a small group of "influentials" are the first to learn about the new project and become transmitters to a wider circle. Lippitt has suggested that school systems are seriously deficient in transmission processes for new and improved ways of working. Hundreds of successful classroom innovations are born to bloom unseen. Some get into journal articles, conversational reports, or books—but many are unknown even to other teachers in the same building.

On the receiving side of diffusion are the educators who "get around," who visit forward-looking school systems, take graduate courses, go to conventions and workshops, serve on committees of national organizations. The "cosmopolites" hear about what is being done: they spread the news and maybe try some of the borrowed innovations in their own schools.

PREVAILING PATTERNS OF CHANGE IN SCHOOL SYSTEMS

11. School buildings of the 1960's are clearly different from those of fifty years ago. What goes on inside the buildings may or may not be as modern. By and large, most changes have been introduced:

(a) sporadically rather than continuously;
(b) by outside pressure rather than generated from within the system itself;
(c) for expediency rather than as an expression of conviction or planning;
(d) one here, one there, rather than in a cumulative and integrated design;
(e) much later than desirable—lagging rather than leading;

(f) at a superficial level, rather than in the basic and fundamental educational functions;

(g) to bring kudos to certain ambitious individuals rather than to do the educational job better.

12. Change has sometimes come so slowly that new educational institutions have arisen to meet the social needs. Traditional academies were replaced by modern secondary schools; youth-serving organizations arose to meet recreational needs the schools did not serve; junior colleges filled a gap not met by existing colleges; "classrooms in the factories" are doing an immense adult education service which schools could not take on; "head start" programs serve young children the schools were unready to assist.

A DESIGN FOR CONTINUOUS SELF-RENEWAL

The following ten steps are derived from analyses of the process of constructive thinking and problem solving: sensing, screening, diagnosing, inventing, weighing, deciding, introducing, operating, evaluating, and revising. Success at each step is partly a matter of cognitive clarity about the goal and appropriate methods of each process. Success depends also on emotional involvement, on skills which need to be developed, and on social structures which will encourage and sustain the desired attitudes. Each of the ten steps will be considered here in turn. The discussion of each step will close with a summary statement of the structural implication of that step for the self-renewing school.

SENSING

1. Sensing is everyone's business. Sensitivity to unmet needs in individuals, whether pupils or staff, and to changing social situations affecting education can never be adequate if it is seen as the duty of one man or a small group. Everyone involved in the schools is likely at some time to become aware of a need for improvement. One distinctive characteristic of a self-renewing school system is that there is constant and widespread sensing of problems and of new possibilities. These are openly expressed, shared, and considered. In varying degrees, everyone listens to everyone else. Participants feel free to talk about the things they think need improvement.

While the general climate of openness and interpersonal trust is essential to permit and encourage the bringing out of sensed difficulties, it is also important to delegate special responsibilities to some parts of the school system. Keeping up—with scientific discovery and technological invention in emerging or waning vocations; new trends in art, architecture, music, and literature; fresh problems and activities of government;

and current efforts in other progressive school systems—is too large an order to leave entirely to personnel busy with other jobs. In many communities there are some citizens who make it their business to be up-to-date in one or another of these areas. Perhaps an advisory committee on emerging trends could enlist persons especially likely to be aware and in touch.

To supplement the free spontaneous expression of students, teachers, administrators, and parents, periodic surveys should be operated to scan the range of concerns which are important to good and better education. Special attention needs to be paid to those lower in the hierarchy who have previously not felt much freedom to express their feelings.

Structural implication: Mechanisms for "keeping up" with internal concerns and external trends and resources.

SCREENING

2. Not every trend in the larger society, and not every difficulty or frustration within school personnel, should lead to significant innovation in the schools. Some order of importance and priority must be established so that the school system can go to work on its more urgent problems. Too often, proposed improvements are concentrated in the areas in which it is easy for school people to operate (e.g., getting more upper-middle class pupils into college) and neglect the really tough situations. Final responsibility for screening and setting priorities rests with the school board, but a policy committee of staff and citizens to advise the superintendent might also help to recommend wise selections. The mechanism required would be a funneling of data from sensing apparatus through a preliminary screening and then to one or more bodies charged with responsibility for deciding whether the items merit further investigation.

Structural implication: A mechanism for setting problem priorities.

DIAGNOSING

3. This step, of critical importance in guiding constructive action, is too often short-cut. It is one thing to be aware that many students lack intellectual curiosity; it is quite another to understand *why*. "Too many students suspended" and "too few parents taking an interest in P.T.A." show needs for some attention, but do not represent a basis, yet, for action proposals. A whole series of questions remain to be answered: Who? Where? When? How do the incorrigible students or uninterested parents differ from those who do respond to school activities? It is essential to hold back on the common impluse to offer solutions until it is quite clear what the problem is and where it lies.

While everyone concerned can take some part in the movement from simple awareness that a problem exists toward defining and diagnosing the real trouble, again a self-renewing school system will have some agency especially devoted to this process. Probably it will take the form of a "research and development" unit, with some full-time personnel. They will conduct some of the scanning operations mentioned here (step 1), and they will move on to interpret the findings, integrate them with other information, and collect new data which may help define more precisely the problem to be solved.

A technique proved useful for better diagnosis is the "force-field analysis," which identifies those forces moving toward a given end and those in opposition. If each vector in a "quasi-stationary equilibrium" is drawn long (to represent a major force) or short (to represent a minor force), the sum of vectors in each of the opposed directions should be about equal. Once the major forces resisting a particular improvement have been identified, the groundwork has been laid for thinking about effective action.

Structural implication: Establishing a research and development unit.

INVENTING

4. When problems have been noted by a sensing process, screened, and diagnosed, it is time to begin generating remedies. At this stage, brainstorming may be helpful, because, with initial evaluation suspended, all kinds of creative notions can get a hearing. This is a good opportunity to involve a wide range of persons, drawing upon a wealth of resources. Pupil groups of all ages, parents of both sexes, and various teaching, administrative, and community groups can be invited to contribute ideas. All start from essentially the same diagnosis of the problem, so the variety of reactions can be illuminating in understanding group and individual differences.

Structural implication: Mechanisms for wide participation in the production of solution proposals.

WEIGHING

5. Weighing the numerous suggestions that emerge from brainstorming is the next step. Sometimes the groups that have been generating ideas can help, using the last part of their session to select four or five which seem best to them. Eventually, however, a small group—perhaps the Administrative Council, or a Research-Development Bureau—must appraise the proposals: What would happen if this or that or the other were put into effect? It is useful, at this point, to distinguish factual questions from those of value and preference. Research can furnish

evidence on matters of fact; value questions call for an approach in which participants are able to communicate their feelings.

Structural implication: A mechanism for screening solution proposals.

DECIDING

6. The culmination of the choosing process is deciding on a particular innovation or set of actions to cope with the diagnosed problem. Those who will have to implement the decision should be involved in making it. A true consensus, to which every participant is genuinely committed, is the ideal.

The approach to a true consensus is rather different from the process of decision which operates in parliamentary procedure. Parliamentary procedure begins with a motion, which is then seconded, debated, and voted upon, being decided by majority or a specified larger fraction of those voting. Often there are amendments, amendments to amendments, and a referral back to some committee for reworking. If a consensus is desired, the process would better be one of successive approximations. A proposal is made; it receives some support but some objections; a second formulation is attempted to take account of the objections; this is still not quite acceptable, so a third version is proposed; now the original objectors are satisfied, but too many concessions have been made and the original supporters are unhappy; so a fourth version introduces some reassurance for them, without alienating the others. Through a series of formulations, the proposal is chiseled into a shape acceptable to all. This often takes a long time, and there may be many decisions for which the gain (in wholehearted support and in assurance that all important viewpoints have been taken into account) will not be worth the time required to achieve consensus.

A kind of consensual process may operate over time, even if not every decision is a true consensus. Participants know that when they feel strongly, their position will be fully taken into account. They recognize, however, that there can be give-and-take in organization cooperation; and they are prepared to go along with some decisions which are not quite what they personally would prefer, because they respect and trust other group members and feel in accord with the main objectives.

Structural implication: Mechanisms for participation of eventual implementers in the decision-making process.

INTRODUCING

7. The next function is introduction of the chosen innovation into the system. This requires some planning. Where? What units would give it the best start? When? Timing is part of good strategy. By whom? The names associated with an innovation can help or hurt it.

A pilot project which can be gradually expanded is often a good approach. Sometimes, however, a change demands all-or-none adoption.

Another strategy question concerns getting aboard those persons who have not yet been involved in the sensing, screening, diagnosing, weighing, and deciding. There is likely to be resistance to a proposal which comes to them "out of the blue." If the change is disturbing and important, it may be necessary to conduct other groups of participants through some of the thinking process which led to the emergence and selection of the new project.

Structural implication: Mechanisms for strategy planning.

OPERATING

8. Operating the innovation as a normal part of the system for a period of time can hardly be further specified, since so much depends on what the affected processes are. A moratorium on revision or rejection until the project has had a fair chance to prove itself may be in order.

EVALUATING

9. At the time when the innovation is designed, it should have had built into it procedures for recording what is done and evaluating the expected outcomes. Evaluation should be both continuous and periodic. It may be the responsibility of a research and development unit within the school system, or of a special subcommittee, or of an outside, impartial agency, or of some combination of these structures. A common error is to let evaluation be done by those conducting the operation. Their involvement in its success usually makes them less objective.

Structural implication: A mechanism for objective evaluation.

REVISING

10. Revising the innovation to take out any "bugs" and to improve its effectiveness calls really for a repetition of most of the steps listed in this section. Need for some revision must be sensed, screened, and diagnosed; proposals must be invented, weighed, chosen, and introduced.

The apparatus of self-renewal—the mechanisms for internal and external sensing; the procedures for screening and diagnosis; the inventing, comparing, and selecting operations; the strategies of introduction, follow-through, and evaluation—itself needs periodic review, appraisal, and revision.

Structural implication: Mechanisms for re-appraisal and revision of the system, its processes, and specific innovations.

The structures and procedures outlined here may prove unduly formal and academic. Efficient and experienced persons discover short-cuts which work as well or better under certain conditions. The self-renewing school system will not give equal weight and attention to all changes. The full-scale, ten-step operation can be held in mind as a model, to be used when the innovation is truly momentous; approximations will be sufficient for many lesser problems.

WORK-KIT

Materials for the Work-Kit are not included in this Volume since they duplicate material found in the Planbook. A list of those materials will be found on page 6, item 1.c.

EXERCISING TWO PROGRAMS THROUGH THE SCHOOL PROCESS MODEL

While a much more complete exercise could be developed, for the purposes of this draft, two programs which well could have been generated by the use of Operation Self-Renewal Planbook have been chosen.

One is an ambitious, high cost per pupil summer field trip program, which a student might well nomer "Project Wide Horizon."

The other is a much more mundane response to the need for mono-sexual class arrangments expressed by many Indian children.

What is shown on the following pages is simply the development of the Cost-Effectiveness Index by the use of the PROJECT DIAGNOSTIC SHEETS. This is the heart of the School Process Model in terms of developing priorities, and "teaching" a reality sense. This particular section will benefit considerably from field-testing the model.

As will be seen, at this stage of Operation Self-Renewal (STEP 8), Project Solo is on the order of 120 times as potentially cost-effective as Project Wide Horizon. This does not necessarily mean the Solo should be adopted and Wide Horizon dropped. It does mean, however, that caution is dictated, and further analysis required.

BIA EDUCATION PROGRAM DESCRIPTION

Problem: To Eliminate Cultural Isolation and Geographic Isolation

I

PROJECT WIDE-HORIZON

Program Description:

Long summer field trips. Students would be motivated as well as educated, by trips to cities as much as several hundred miles away. Private boarding schools could provide a relatively inexpensive place to stay and an opportunity to experience a totally different cultural atmosphere. However, Indian students would be watching a similar educational process to their own.

	Pilot Program	Operational Program
What:	2 2-week field trips, one for 30 elementary children, & one for 30 high school students.	About 400 2-week trips for 30 children per summer. Enough trips would be arranged so that every child would go on 2 during his school career.
Where:	1 Navajo to Los Angeles 1 Pine Ridge to Chicago	About 2 from every reservation per summer, not always to the same city
When:	late June/early July, 1969	1970, if pilot is successful until 1982
How:	Select children randomly Use parents & college students from host city as Arrange room & board at school in host city	same
Schedule:		
Costs: Personnel	2 tchrs from home school- no extra cost 4 parents - $400 4 college students - $400	400 tchrs 800 parents 80,000 800 students 80,000
Facilities:	room & board @ 2k/sch. = 4k (assume reduced rate-contributation)	room & board @ 2k/school= $800k
Equipment:	charter bus (2) 2,000	busses 400 400,000
Other:		
TOTAL:	$6,800 85-94	$1,360,000 (cost/pupil: $80)

PROJECT DIAGNOSTIC SHEET

Instructions:

1. Enter value factor in Column 1, A and B.
2. If re-allocated funds, enter value factor in Column 2, A and B.
3. Follow through steps indicated in C.
4. Enter Cost-Effectiveness Index (CEI) in box on next page.

PROGRAM - PROJECT WIDE HORIZON

	Value Factor (VF) Range	1 VF Proposed Project	2 VF Lost Service
		V	V'
A. Problem Area 1. Perceived need determine from location rank order list (top of list=10, bottom-0)	0 to 10	7	
B. Project Suggestion 2. Constraints Assess constraints total on basis of consideration of real factors such as acceptability to extra-school authorities, staff, teachers, parents, community members, also time, space.	0 to -10	-2	
3. Benefits from change a. Student achievement-anticipated likelihood that project will materially affect student academic achievement.	0 to 10 x .7	4.2	
b. Student satisfaction-anticipated likelihood of improvement in attitude of students.	0 to 10 x .3	3.0	
c. Improved staff and teacher attitude and effectiveness	0 to 5	3.0	
4. Human Resources available Are there personnel available who will expend the energy, and have the skill to carry out the project.	0 to 5	4.0	
	V factor total	19.2	

C. Cost Efficiency Index (CEI)

1. Re-allocated funds

   a. If project were to be permanently adopted, what is likely to be cost per pupil served

   F factor = 80

   Z factor .24

   b. Multiply 1/F x V =

   c. To determine trade-off loss, develop V' factor using column 2 for service being dropped by reallocation of funds.

   d. What is cost per pupil served of service being dropped?

   F' factor = ________

   e. Multiply 2/F' x V'= Z factor__________

   f. Z-Z' = CEI enter below

2. New Funds

   a. Multiply F factor step C.1.a. above by 1.5 if finds are available but unallocated

   N factor = 120

   b. Multiply: 1/F x N = CEI enter below

   c. Multiply F factor step C.1.a. by 4 if funds unavailable but possible to obtain

   N' factor = ________

   d. Multiply: 1/F x N' = CEI enter below

Project CEI .16

BIA EDUCATION PROGRAM DESCRIPTION

Problem: STUDENT INHIBITION IN THE CLASSROOM

II

PROJECT SOLO

Program Description: SEPARATE STUDENTS BY SEX FOR CLASSROOM WORK.

This would perhaps be one per area or one per tribal group. During the student group activities Abt Associates Inc. undertook while in the field, we discovered that students (particularly junior high through high school) were more talkative less shy about interacting in groups when they were working in sexually homogeneous groups. This probably relates to the roles men and women play in many Indian groups which are different and more clearly defined than those generally played by their counterparts in middle-class white society. A total class group (about 25 students) could be the same sex or a sexually-mixed class could be divided into separate boy and girl work and study groups. The critical population here is grades 6-9.

	Pilot Program	Operational Program
What:	Sexually homogeneous work study groups for classwork.	Same.
Where:	One school per area or one distinct tribal group: Grades 6-9 only.	Whenever it is clear that student interaction and academic achievement are enhanced by homogeneou groups. This is more likely amon the more traditional Navajo than among the acculturated Chippewa.
When:	Beginning school year 69-70 Limit on experiment is three years.	Should be implemented as soon as it i clear that the experiment works.
How:	Assign boys and girls to different rooms or else train teachers to work with small, sexually homogeneous groups.	Same.
Schedule:	Begin school year 69-70 3-year experiment; becoming fully operational as soon as it is clear it works.	Pilot program becomes operationa term after it is clear experiment is successful. Continues operationa as long as it is necessary.
Costs:		
Personnel	Possible training costs to train teachers to work with small groups.	
Facilities:		
Equipment:		
Other:	Possible cost in class scheduling	
TOTAL:		

PROJECT DIAGNOSTIC SHEET

Instructions:

1. Enter value factor in Column 1, A and B.
2. If re-allocated funds, enter value factor in Column 2, A and B.
3. Follow through steps indicated in C.
4. Enter Cost-Effectiveness Index (CEI) in box on next page.

PROJECT SOLO

	Value Factor (VF) Range	1 VF Proposed Project	2 VF Lost Service
		V	V'
A. Problem Area 1. Perceived need determine from location rank order list (top of list=10, bottom-0)	0 to 10	9	3
B. Project Suggestion 2. Constraints Assess constraints total on basis of consideration of real factors such as acceptability to extra-school authorities, staff, teachers, parents, community members, also time, space.	0 to -10	-1	0
3. Benefits from change a. Student achievement-anticipated likelihood that project will materially affect student academic achievement.	0 to 10 x .7	6.3	2
b. Student satisfaction-anticipated likelihood of improvement in attitude of students.	0 to 10 x .3	2.4	1
c. Improved staff and teacher attitude and effectiveness	0 to 5	4	1
4. Human Resources available Are there personnel available who will expend the energy, and have the skill to carry out the project.	0 to 5	5	3
	V factor total	25.7	10

C. Cost Efficiency Index (CEI)

1. Re-allocated funds

   a. If project were to be permanently adopted, what is likely to be cost per pupil served

   F factor = $2.00/

   Z factor 12.7

   b. Multiply 1/F x V =

   c. To determine trade-off loss, develop V' factor using column 2 for service being dropped by reallocation of funds.

   d. What is cost per pupil served of service being dropped?

   F' factor = 3.00

   e. Multiply 2/F' x V'=

   Z factor 6.7

   f. Z-Z' = CEI enter below

2. New Funds

   a. Multiply F factor step C.1.a. above by 1.5 if finds are available but unallocated

   N factor = ________

   b. Multiply: 1/F x N = CEI enter below

   c. Multiply F factor step C.1.a. by 4 if funds unavailable but possible to obtain

   N' factor = ________

   d. Multiply: 1/F x N' = CEI enter below

Project CEI 19.4

PROGRAMS APPLICABLE TO THE SCHOOL PROCESS MODEL

Information Exchange Newsletter
Vocational Mobility in School
Parent Orientation Film
Innovation Council at Each BIA School
Increase Research and Development Sources of Funding
Academic Achievement Awards of Trips to Europe for High School Students
Local School Control of a Substantial Portion of the School Operating Budget
Indian Elite School
Parent Education in Student Evaluation Methods
BIA School-Wide Testing Program
Recruitment of More Indian Teachers
Radio Ham Shacks in All High Schools
R&D Sabbaticals for Innovative Teachers and Administrators
Parent School Orientation
Cost-Effectiveness Evaluation System for BIA Schools
Foster Homes Near Central Schools
College System at the High School Level
Income-Producing Educational Projects
Incentives Given for Improved Principal Performance and Selection Procedures
Local Control of Indian Schools Through Parent School Boards
Parent Education Through Master Teachers
College Preparatory Schools on Post-High School Level
Funds For Prospective College Students
Contract Schools
College Scholarship Program
Student Involvement in Recruitment of Teachers
Quadrupled Contract R&D Budget
Mobile Schools: Truck, Ship, Airborne
Family Cottage Boarding
Multiple Small Day Schools

Chapter III

CURRICULUM EVALUATION MODEL

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I. OVERVIEW

The Curriculum Evaluation Model is a technique for calculating the cost-effectiveness of alternative curriculum materials by a detailed breakdown and analysis of their components, quality, and cost. Most broadly, the curriculum materials under evaluation must meet requirements in four major categories: coverage, appropriateness, motivational effectiveness, and cost.

These categories do not all lend themselves equally to objective evaluation. While the cost of curriculum materials may be represented in dollars with a high degree of accuracy, measurement of coverage, appropriateness, and motivational effectiveness must rely to a great extent on the considered judgment of individuals. This is all the more true in cases where new curriculum materials are being evaluated with a view to their purchase. It is possible, however, to ensure a considerable degree of objectivity by the establishment of a variety of standards which the ideal curruculum should meet, and by the assignment of relative degrees of importance to each of these criteria. The model thus recognizes the need for personal judgments at the same time that it guards against the very human tendency to accept or reject on the basis of only a few criteria.

It will be noted, also, that measurement of the appropriateness and motivational effectiveness of curriculum materials must depend on an accurate representation of the views of the students and teachers themselves. A shop course, for example, may seem to be highly useful in helping students to attain their educational goals, if these goals are assumed to include preparation for blue-collar employment. Should the students instead desire to attend college after graduation, the course may in fact be hindering their progress.

Goals vary from region to region, from tribe to tribe, from school to school, and from student to student. The only way, therefore, to determine whether curriculum materials are in fact consonant with the goals and desires of students and teachers is to offer them the opportunity to express their opinions. Part of this model is, therefore, a set of questionnaires, for students, teachers, and administrators, by which preferences may be defined. The processing of these questionnaires must precede the completion of those parts of the evaluation which measure the degree to which the curriculum materials are consonant with the expressed goals and preferences of students and teachers. This aspect of the model is intended both to permit accurate evaluation of curriuclum materials and to facilitate understanding among teachers, students, and administrators. Its design recognizes also that curriculum materials, to be effective in the classroom, must be acceptable to both students and teachers.

The model, therefore, suggests guidelines for a quantitative measurement of the curriculum, on a scale of 0 to 200; each of the four major criteria described above is considered to be of equal importance, and is therefore rated on a scale of 0 to 50. These four criteria are futher broken down into their major and minor components; the score in every category is the sum of the scores of its components. A high aggregate score, however, is not invariably the sign of highly desirable curriculum materials. For example, one textbook might receive a rating of 50 in the categories of cost, coverage, and appropriateness, while receiving a rating of 10 in the category of motivational effectiveness. Another textbook might receive ratings of 35 points each in all categories. In this case, although the aggregate score of the former is twenty points higher than that of the latter, the second book is probably preferable. In a later section of this model, the implications and applications of the primary data will be discussed in greater detail.

This curriculum evaluation model is deisgned for its users. It is dependent on its users for their judgments not only of the quality of curricula, but also of the validity of the model. The same numerical weighting, both of the major criteria and of their components, may not be equally applicable to all situations in all schools. It is therefore advisable that users of the model, once they have completed the evaluation in the proposed manner, consider carefully the numerical weights suggested by the model, and, if they believe it necessary, make alterations in them. The user is cautioned, however, to adhere to the weightings suggested by the model in his first evaluation to prevent his own preferences from unconsciously prejudicing the results.

In succeeding pages will be found a chart and an outline representing the components of curriculum cost-effectiveness, a detailed description of the rationale and procedure for the evaluation of major and lesser components, questionnaires, and a discussion of methods of analyzing the primary evaluation data.

II. COMPONENTS AND WEIGHTS

On a scale of 0 to 200 points. (If any of these scores are very low, the entire curriculum should be rejected.)

I. Coverage (50)
    A. National, state, and college standards (30)
        1. Standardized test preparation (10)
            a. state (6)
            b. national (4)
        2. State coverage requirements (15)
        3. College entry requirements (5)
            a. junior college (1)
            b. state university (3)
            c. highest selectivity private university (1)
    B. Qualitative comparison with standard materials (20)
        1. Scope (4)
        2. Detail (4)
        3. Accuracy (4)
        4. Clarity (4)
        5. Logic of sequence (4)

II. Appropriateness (50)
    A. Utility (10)
        1. College preparation
        2. Blue-collar job preparation
        3. White-collar job preparation
    B. Difficulty (10)
        1. Substantive (5)
            a. for teacher (2)
            b. for student (3)
        2. Linguistic (5)

- C. Suitability of media to material (10)
- D. Suitability of media to student needs (10)
    - 1. Direction (5)
        - a. directive
        - b. non-directive
    - 2. Structure (5)
        - a. structured
        - b. unstructured
- E. Graphic (10)
    - 1. Type size (2)
    - 2. Proportion of printed to visual materials (8)

III. Motivational Effectiveness (50)

- A. Teacher (20)
    - 1. Stimulation (6)
        - a. subject-relevant
        - b. subject-irrelevant
    - 2. Perceived utility (8)
        - a. cross-topical transfer motivation (3)
        - b. intensive study motivation (3)
        - c. increased scope motivation (2)
    - 3. Demand level (6)
        - a. below level of teacher preference
        - b. at level of teacher preference
        - c. above level of teacher preference
- B. Student (30)
    - 1. Stimulation (4)
        - a. subject-relevant
        - b. subject-irrelevant
    - 2. Perceived utility (10)
        - a. academic (6)
        - b. employment (4)
    - 3. Cultural relevance (14)

        4. Demand level (2)
            a. below level of student preference
            b. at level of student preference
            c. above level of student preference

IV. Cost (50)
    A. Dollar cost (30)
        1. Basic materials
        2. Supplementary materials
        3. Necessary equipment and facilities
        4. Necessary teacher training
    B. Time cost (20)
        1. Student (10)
            a. class time
            b. daily preparation
            c. projects
        2. Teacher (10)
            a. class time
            b. daily preparation
            c. training time

III. OBTAINING THE INPUTS: RATIONALE AND INSTRUCTIONS

Coverage

Curriculum coverage is measured in two principal ways, against national, state, and college standards, and against the quality of the coverage offered by standard curriculum materials in the field and grade level of the materials being evaluated. Of the fifty points allotted to coverage, thirty are assigned to the first of these dimensions and twenty to the second.

National, State and College Standards

This section is divided between standardized test preparation (ten points), state coverage requirements (fifteen points), and college entry requirements (five points).

Standardized test preparation is further subdivided between statewide and national tests. In this case, as in all others where subdivisions are assigned numerical weights, the smallest subdivisions must be rated first, as their sum is the rating given to the next highest division. In this example, the sum of the ratings given to "state test preparation" (six points maximum) and to "nation test preparation (four points maximum) yields the rating for "standardized test preparation" (ten points maximum). Similarly, the rating given to "national, state, and college standards" is the sum of the ratings given to "standardized test preparation," "state coverage requirements," and "college entry requirements;" it is in turn added to the rating given to "comparison with standard materials" to yield the overall rating for "coverage."

Unless data is available on the relative performance on state and national examinations of students using these and other curriculum materials, it will probably be necessary to estimate the degree to which the materials are helpful in preparing the students. This may be done simply by studying examinations given in past years to determine whether the information they demand is included in the curriculum materials.

In the case of new materials, evidence supplied by the publisher is admissable as a partial basis of judgment, although only where the materials have been tested on school populations imilar to that in the school where this evaluation is taking place, and where substantial proof of efficacy has been presented. The teacher-evaluator should decide whether the use of these curriculum materials has had (or in the case of new materials, will have) a significant effect on student preparedness for standardized examinations. If extreme improvement has been or is likely to be shown, the maximum rating should be assigned; if a sharp decrease in preparedness, the rating should be 0. If neither improvement nor decrease has been or is likely to be noted, an average rating (3, in the case of state tests, and 2, for national tests) should be assigned.

The degree to which the curriculum materials meet state coverage requirements is an important measure of its usefulness in the school. Failure to meet these requirements may adversely affect student performance on standardized tests, on state university entrance examinations, and in any subsequent education in public schools or institutions of higher learning within the state. In most cases, state boards of education state quite specifically those topics which are to be studied in each subject at each grade level. Curriculum materials which fulfill in every particular the state requirements should receive a rating of fifteen points; those which in no way conform to these requirements should receive a rating of zero. Intermediate numbers should, as throughout the evaluation, be used to express gradations between absolute success and failure in meeting criteria.

A value of five points is assigned to "college entry requirements." This is subdivided further among the requirements of the state university, local junior colleges, and of the highest quality private colleges. Of these, the state university is probably of the greatest importance, as it is to this institution that most students will probably go for thigher education. Curriculum materials which meet the entrance standards of junior colleges should receive a rating of one point; those which meet the entrance standards of both junior colleges and the state university should receive a rating of four points; those which meet the entrance requirements of junior colleges, the state university, and the most highly selective private colleges should receive ratings of five points.

Qualitative Comparison with Standard Materials

The quality of curriculum materials is to be measured by comparison with standard curriculum materials in the same subject area and grade level, according to five factors: Scope, detail, accuracy, clarity, and logicality of sequence. The curriculum materials are to be rated from 0 to 4 on each of these counts; the highest possible overall rating for "qualitative comparison with standard materials" is therefore twenty. Obviously, a score of twenty is unlikely to be achieved. For example, scope or breadth of coverage and detail of coverage are likely to be to some extent mutually exclusive. In each of the five categories, a rating of four should indicate outstanding superiority to standard materials, a rating of zero extreme inferiority, and a rating of two approximate equivalence.

Appropriateness

The appropriateness of curriculum materials is measured along five dimensions, each of which receives a weighting of ten points: utility, difficulty, suitability of media to material, suitability of media to student needs, and graphic appropriateness. Each of these categories is further subdivided into its components.

Utility

The utility of curriculum materials is dependent on the purpose they are intended to serve. It is, therefore, necessary to obtain a clear idea of student goals, from the questionnaire which is appended to this model. A chart should therefore be made, illustrating the percentage of students who intend to pursue college, white-collar, and blue-collar careers, and the utility of the curriculum materials toward the fulfillment of these goals:

	Student Goals									
	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
college										
white-collar										
blue-collar										

	Curriculum Utility									
	1	2	3	4	5	6	7	8	9	10
for college										
for white-collar										
for blue-collar										

The approximate percentage of students planning to follow each type of career should be entered on the upper chart by blacking in the appropriate number of boxes in each category. On the lower chart, the usefulness of the curriculum materials to students planning to follow each type of career should be rated from 1 to 10. (The number of boxes filled in on the lower chart need not be limited to ten.) To arrive at an overall rating of utility, the number of blacked-in boxes on the upper chart, for which the corresponding boxes on the lower chart are also blacked in, in counted. This will be a number from one to ten.

For example, if half the students indicate an intention to pursue college careers, and half white-collar careers and the curriculum materials have received a college utility rating of 3 and a white-collar utility rating of 10, the overall curriculum utility rating would be 3. With this school population, a film on carpentry which received a blue-collar utility rating of 10 would receive an overall utility rating of 0, as it does not correspond to student needs.

Difficulty

Curriculum materials are to be rated according to their substantive and linguistic difficulty. Substantive difficulty is subdivided between difficulty for students and for teachers. Curriculum materials which place inordinately great or insufficient demands on the students' capacity to absorb and understand should receive a rating of 0; those which place completely appropriate demands should receive a rating of 3; and materials which place moderately inappropriate demands should receive ratings of 1 or 2. Curriculum materials which place appropriate demands on teachers should receive a rating of 2 in that category. In some cases, as for example the "new math," students may be able to understand the materials, but teachers, owing to a lack of training in this approach to the subject, may not be able to offer satisfactory instruction; in such cases, a rating of 0 should be given. A rating of 1 should be given in cases of moderate appropriateness of substantive difficulty for the teacher.

Linguistic difficulty is measured on a scale of 0 to 5. A rating of 5 indicates that the materials are entirely appropriate to the students' reading ability. A rating of 0 indicates that the materials are written at a level of difficulty falling either far above or far below the students' ability. Intermediate ratings should again be used to represent gradations of appropriateness.

Suitability of Media to Material

A value of ten points is assigned to this cateforey, which measures whether the media employed to teach the material are appropriate means of conveying knowledge in the subject area. For example, a textbook might be an entirely appropriate means of teaching English literature, and should therefore receive a rating of ten; it might, however, be an entirely inappropriate means of teaching shop, home economics, or drama, and should therefore receive a rating of 0. A series of films might be extremely useful in teaching government, but inappropriate to instruction in English literature. Intermediate numbers should be used to indicate gradations of appropriateness.

Suitability of Media to Student Needs

This category is subdivided between direction and structure, each of which is valued at five points. Directive instruction implies a high degree of control by the teacher over the student's activities; the student performs tasks assigned him by the teacher under his or her supervision. Non-directive insturction implies a much greater degree of autonomy and self-reliance on the part of the student. (Studies have shown that non-directive instruction tends to be the most successful with highly intelligent and motivated students; less intelligent and motivated students tend to need considerable direction from the teacher.)

A workbook, in which tasks are assigned specifically, is an example of directive instruction; educational games or individual research projects, the progress of which is not directly supervised, are examples of non-directive techniques. In this category, the curriculum materials should be rated from 0 to 5, according to the degree to which they lend themselves to teaching techniques of a level of directivity appropriate to the needs of the students.

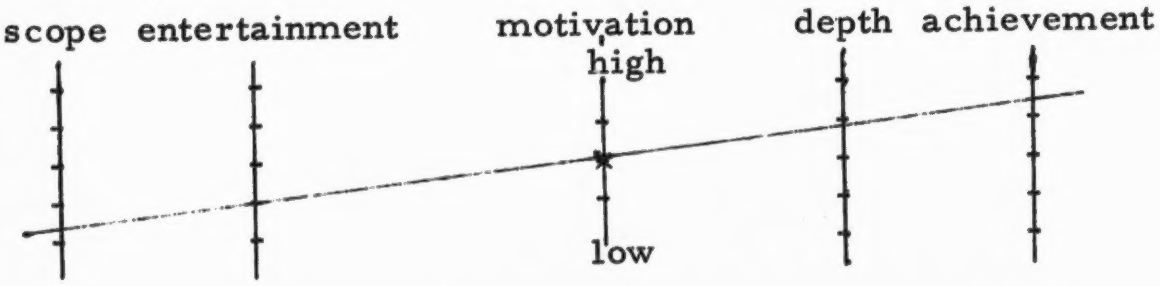
The curriculum materials should also be rated from 0 to 5 according to the degree to which they permit a level of structure appropriate to the students' needs. Structured instruction implies rigid achievement goals, established by the teacher, stressing output. Unstructured instruction implies emphasis on the learning process itself; the decision making, problem solving, and individual creativity of the student are of greater importance than set output goals. Here again, unstructured instruction is usually better suited to pupils of high intelligence and motivation.

Graphics

Graphic appropriateness is subdivided between type size (two points) and the relative proportion of printed and visual matter (eight points). The evaluators should, in the first instance, estimate whether the type is large enough to suit the needs of the children for whom it is designed. Next, he should estimate whether there are sufficient illustrations, maps, or charts to meet the children's informational needs and to stimulate them to read the printed matter.

Motivational Effectiveness

Motivational effectivenss (fifty points) is an extremely critical requirement of curriculum effectiveness. In all learning situations, there is a tradeoff between such pairs of factors as scope and depth, and student entertainment and student achievement. In every case, however, the level of each variable, and their degree of mutual exclusivity, is contingent on the level of student motivation. This may be represented by a chart:



The lines at the left and right represent the two variables; the line in the center represents the level of student motivation. The possible tradeoffs, at a given level of motivation, may be approximated by drawing connecting lines from the left to the right-hand line, such that the connectives pass through the motivation line at the appropriate level. Where motivation is low, therefore, both student entertainment and achievement are likely to be low; where motivation is high, both are likely to be high; where motivation is moderate, both my be moderate, or one may be high and the other low. The purpose of this chart is not so much to aid in evaluation of motivational effectiveness as to stress the importance of this criterion. Curriculum materials must be evaluated as to their motivational effectiveness for both students and teachers. These subdivisions are assigned values of thirty and twenty points, respectively.

Teacher Motivation

In order for teacher to offer instruction at the peak of their ability they, as well as the students, must be motivated. Three factors are critical: stimulation (six points), perceived utility (eight points), and demand level (six points). Stimulation is subdivided between that which is relevant and that which is irrelevant to the subject being taught. That is, curriculum materials may be highly entertaining, but may not stimulate the teacher either to improve his knowledge of the subject matter or to teach his subject to the best of his ability. Stimulation should therefore be rated from 0 to 6; curriculum materials which are highly stimulating, but not in a manner relevant to the subject, should receive a maximum rating of two points.

Perceived utility (eight points) is subdivided between cross-topical transfer motivation (three points), intensive study motivation (three points), and increased scope motivation (two points). Cross-topical transfer motivation refers to the efficacy of the materials in stimulating the teacher to study other fields of relevance to his subject. History materials, for example, might stimulate a teacher to study the literature or economics of the period in question. Intensive study motivation refers to individual research in detail into the topic being studied. Increased scope motivation refers to breadth of study within the field.

The third major criterion of teacher motivational effectiveness is the level of demand placed on their time, energy, and knowledge. Curriculum materials which create a demand consonant with teacher preferences should receive a rating of six; those which demand either too much or too little of teachers should receive lower ratings. On the whole, teaching materials which demand slightly too much are preferable to those which demand too little. It is difficult, however, to represent this quantitatively, and the evaluator's judgment must be relied upon for an estimation of teacher capabilities.

Student Motivation

Student motivation has been found to be divisible into four major components: stimulation (four points), perceived utility (ten points), cultural relevance (fourteen points), and demand level (two points). There will, of course, be overlap among several of these categories.

Stimulation should be rated from 0 to 4; materials which are highly stimulating, but not in a manner related to the subject, should receive a rating of one point.

Perceived utility is subdivided between academic (six points) and employment (four points) utility.

Cultural relevance is a highly critical criterion. For curriculum materials to be relevant to Indians, they need not be devoted entirely to

Indians or aimed specifcally at Indians. Rather, they should be materials to which the Indian child can relate. In subject areas where these criteria are applicable, they should be free of racial or religious bias, open or implied; free of middle-class bias; neither contemptuous not condescending toward the American Indian; cognizant of rural as well as urban America; cognizant of the problems of minority groups in general; and so on. Materials which can be used to draw analogies to specifically Indian problems and situations are often quite as "Indian relevant," and sometimes more so, than materials which deal specifically with aspects of Indian culture or history with which students are familiar. The high point rating (fourteen) is an indication of the importance which the analysts have found to be attached to this particular criterion of curriculum motivational effectiveness.

The student demand level should be rated on a scale of 0 to 2; appropriate demand should receive a rating of 2, and inappropriate demand, whether excessive or insufficient, should receive a rating of 0 or 1, depending on its degree.

Cost

Dollar costs are to be measured against average class size. For purposes of illustration, let us assume that the average class is composed of twenty students. The cost of such materials as films and projectors on which to show them, must be distributed over all classes which will use them. The average lifespan of materials must also be taken into consideration. If, for example, three classes each year will use the films and projectors; if the average life span of usefulness of a textbook is five years, and of a film ten years; and if workbooks are to be replaced yearly, dollar costs could be computed in the following manner: (over a ten-year period)

60 texts @ $5 x 2 (accounting for replacement after five years)	= $ 600
60 workbooks @ $2 x 10 (replaced annually	= $1,200
8 filmstrips @ $40	= $ 320
4 films @ $200	= $ 800
1 projector @ $500	= $ 500
	$3,420 subtotal

In addition, the costs of teacher training must be considered. If $500 worth of training is required; if the teacher can be expected to teach all three classes; and if teacher turnover rates indicate that after five years, a new teacher will have to be trained in use of the materials, training costs over a ten year period will be $1000.

$$\begin{array}{r l} \$1000 & \\ \underline{3420} & \\ \$4420 & \text{divided by } 10 = \$442 \end{array}$$

$442 divided by 3 = $147.33 per class of 20 annually

It will be noticed that the suggested value assigned to dollar costs is "30". Clearly, the least expensive materials will receive the highest number in this category, and the most expensive materials the lowest number. This does not indicate, of course, that inexpensive materials are preferable to expensive materials. It is, however, necessary to determine on the basis of other parts of this evaluation, whether the purchase of more expensive materials is getting his money's worth, and whether the purchaser of inexpensive materials is practising false economy.

After ascertaining what the average cost of materials in the subject area of those being evaluated, rate the materials according to the degree to which they fall below or exceed average dollar costs. A rating of "15" indicates that the dollar cost of the materials is average; a rating of "0" indicates that they are remarkably more expensive, and a rating of "30" that they are remarkably less expensive than average. Gradations are expressed by using intermediate numbers.

Time Costs

It is necessary to consider time as well as dollar costs, as time, like money, is a valuable and limited resource. The necessity of evaluation along this dimension is clear; a course which demands twice as much classroom and homework time as the average class may well cause students to learn more, but they may do so to the deteriment of their other studies. It is necessary also to determine whether additional time expenditure is efficient; does the student learn twice as much in 20 hours a week of study as in 10? In order to evaluate student time cost, it is first necessary to estimate the amount of time expended each week by the average student on his academic classes.

This number should be divided by the number of courses to determine time expenditure on the average course. To this should be added the amount of time spent each month or semester on outside projects, reading, etc., divided by the appropriate number of weeks.

Thus:

25 hours per week class time
15 hours per week homework
4 hours per week projects (16 hrs. per month, divided by 4)

---

44 hours per week student work
divided by 4 courses = 11 hours per week average course requirement.

If the amount of time required by the course materials under evaluation is equal to the average, place a "5" in the "student time cost" box. If remarkably less time is required, place a "10" in that box. If remarkably more time is required, place a "0" in that box. Use intermediate numbers to express gradations of time cost.

Teacher time cost is to be evaluated similarly. Time spent training for the course must be averaged in, as well as time spent in class, correction of homework, and daily preparation.

When dollar costs, teacher time costs, and student time costs have been computed, add them together. The sum will be a number from "0" to "50". A "0" indicates that the entire cost, in dollars and time, is extraordinarily high; a "50" that the cost is extraordinarily low. It is, of course, unlikely that the figure will be either number. Enter this figure in the "cost" box.

IV. UTILITIES

The product of the processes described in the previous section of the model should be a number from 0 to 200, representing the sum of the ratings, from 0 to 50, of the four major components: coverage, appropriateness, activational effectiveness, and cost. Each of these is in turn the product of its component. This number is not in itself highly useful, except in that it has compelled a numerical assessment of the curriculum along a variety of dimensions. The model is highly useful, however, when several alternative curriculum materials in the same subject area are compared. In this way, certain apparent discrepancies (such as the low rating which most mathematics courses will receive in "cultural relevance") are resolved.

This single number is not, however, the only index of curriculum quality. For example, a set of curriculum materials which receives a rating of 50 in coverage, motivational effectiveness, and cost, but a rating of 0 in appropriateness, is undoubtedly inferior, for use in the school, to a curriculum which receives ratings of 35 in each category, for a lower aggregate score. In order to obtain an index of overall usefulness, apart from cost, the scores for coverage, appropriateness, and motivational effectiveness should be multiplied. This product may be multiplied by the cost rating, depending on the budgetary constraints imposed on the school. These three scores will provide considerable assistance in assessing the relative costs and benefits of alternative materials.

In assessing the data, however, the evaluator is cautioned to examine the ratings of specific sub-divisions as well. An extremely low rating for some of these sub-divisions must place in doubt the overall value of the curriculum materials as a whole. Among these crucial criteria are accuracy (I. B. 3), utility (II. A), motivational effectiveness for teacher (III. A), motivational effectiveness for student (III. B), perceived utility to students (III. B. 2), and cultural relevance (III. B. 3). Other critical requirements may be added to this group at the discretion of the evaluator.

The Curriculum Evaluation Model is not, then, infallible. Designed to take into account the needs and preferences of individuals, it is susceptible as well to human error. If it is used conscientiously, however, with appropriate adjustments in the weightings made by the evaluator, it is useful means of comparing the quality and cost-effectiveness of alternative curriculum materials.

V. RATINGS

To be filled in by the evaluator:

Initial Ratings

I. Coverage (___ of maximum 50)
A. National, state, and college standards (____of max. 30)
1.
a. state (_____ of max. 6)
b. national (_____ of max. 4)
2. State coverage requirements (____of max. 15)
3. College entry requirements (____of max. 5)
a. junior college (____ of max. 1)
b. state university (_____of max. 3)
c. highest selectivity private university (____ of max. 1)
B. Qualitative comparison with standard materials (____ of max. 20)
1. scope (____ of max. 4)
2. detail (____ of max 4)
3. accuracy (____ of max. 4)
4. clarity (____ of max. 4)
5. logic of sequence (____ of max. 4)

II. Appropriateness (____ of max. 50)
A. Utility (____ of max. 10)

	Student Goals											Curriculum Usefulness										
	0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8	9	10
college																						
white-collar																						
blue-collar																						

B. Difficulty (____ of max. 10)
1. substantive (____ of max. 5)
a. for teacher (____ of max. 2)
b. for student (____ of max. 3)
2. linguistic (_____ of max. 5)

- C. Suitability of media to material (____ of max. 10)
- D. Suitability of media to student needs (____ of max. 10_
  - 1. direction (____ of max. 5)
  - 2. structure (____ of max. 5)
- E. Graphic (_____ of max. 10)
  - 1. type size (____ of max. 2)
  - 2. proportion of printed to visual materials (____ of max. 8)

III. Motivational Effectiveness (____ of max. 50)

- A. Teacher (____ of max. 20)
  - 1. stimulation (____ of max. 6)
  - 2. perceived utility (____ of max. 8)
    - a. cross-topical transfer motivation (____ of max. 3)
    - b. intensive study motivation (____ of max. 3)
    - c. increases scope motivation (____ of max. 2)
  - 3. demand level (____ of max. 6)
- B. Student
  - 1. stimulation (____ of max. 4)
  - 2. perceived utility (____ of max. 10)
    - a. academic (____ of max. 6)
    - b. employment (____ of max. 4)
  - 3. cultural relevance (____ of max. 14)
  - 4. demand level (____ of max. 2)

IV. Cost (____ of max. 50)

- A. Dollar cost (____ of max. 30)
- B. Time cost (____ of max. 20)
  - 1. student (____ of max. 10)
  - 2. teacher (____ of max. 10)

Final Ratings

I. Additive:

coverage ( )
appropriateness ( )
motivational effectiveness ( )
cost ( )

---

total rating ( )

II. Multiplicative (qualitative only):

coverage ( ) x appropriateness ( ) x motivational effectiveness ( ) = ( ) qualitative rating.

III. Multiplicative (including cost):

coverage ( ) x appropriateness ( ) x motivational effectiveness ( ) x cost ( ) = ( ) overall multiplicative cost-effectiveness rating.

Questionnaire I. Students

1. What grade are you in at this time? (circle one)

   1 2 3 4 5 6 7 8 9 10 11 12 post-graduate

2. Are you male or female? (circle one)

   male female

3. How many years of schooling would you like to receive in all? (circle one)

8 9 10 11 12	post-graduate	two-year college
four-year college	graduate school	law school
medical school	other (explain)	

4. How many years of schooling do you think you will receive in all? (circle one)

8 9 10 11 12	post-graduate	two-year college
four-year college	graduate school	law school
medical school	other (explain)	

5. What sort of career do you plan to follow after you finish school? (circle one)

   blue-collar worker (factory jobs, construction, truck driver, etc.)
   white-collar worker (clerk in an office, nursing, accountant, factory supervisor, etc.)
   professional (teacher, doctor, lawyer, etc.)

6. If you think that you will receive more years of schooling than you actually want, state the reason: (circle one)

   pressure from parents required by law other (explain)

7. If you think that you will not receive as much schooling as you would like, state the reason: (circle one)

   won't be able to afford to
   won't be prepared adequately by the school attended now
   other (explain)

Questionnaire II. Teachers

1. Of every twenty students in your classes, how many are likely to end their years of schooling after each of the following levels:

___8th grade
___9th grade
___10th grade
___11th grade
___12th grade
___post-graduate
___two-year college
___four-year college
___graduate school
___law school
___medical school
___other (explain)

2. Of every twenty students in your classes, how many are likely to pursue the following occupations after finishing school:

___farm worker
___blue-collar worker
___white-collar worker
___professional

3. Where do you think the school should place greatest emphasis: (place an "x" by every area which should be emphasized, and two "x's" by the area which should be emphasized most)

___vocational training (blue-collar)
___vocational training (white-collar)
___academic preparation (college)

4. How many hours do you think you should be expected to spend each week in preparation for each of your classes:

_______reading, research, and lesson preparation
_______correction of homework
_______other (explain)

5. a) Would you be interested in receiving training:

___in new teaching techniques?
___in new curriculum materials?

b) Would you be willing:

___to attend teacher training workshops on weekends?
___to receive training in sessions lasting several weeks during the summer?
___to receive training from written materials sent to you during the school year?

Chapter IV

TEACHER EVALUATION WORKBOOK

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Summary of Teacher Evaluation Model

The materials included in the Teacher Evaluation Workbook will help the user to conduct an evaluation of elmentary and secondary school teachers. The evaluation might be conducted by school personnel (administrators, teachers, or both) or by education specialists brought to the school. The materials might also be adapted for student evaluation of teachers.

The evaluation workbook is the basic design of a teacher evaluation model. The model has not been field tested. Different users will probably wish to develop the model further and to modify it to suit their particular needs.

Included in the workbook are materials and directions for conducting both an Initial Evaluation and an In-Depth Evaluation. Central to both the Initial and In-Depth Evaluations is the Teacher Observation Guide.

The Initial Evaluation is conducted to ascertain whether the In-Depth Evaluation is necessary, and to make this apparent to administrators, both at the school level and above. It takes place in the three successive phases; the Teacher Observation Guide is used first to collect information from teachers on ideal teacher behavior, then to learn their perceptions of their own behavior, and, lastly to evaluate teacher behavior from actual observation.

If there are significant differences between the descriptions of teacher behavior as actually observed and teachers' own conception of the ideal teacher, or, more significantly, between teacher behavior as observed and as perceived by the teachers, the In-Depth Evaluation would probably be useful.

The In-Depth Evaluation is structured around the Teacher Evaluation Model. The major inputs to this model are descriptions of the teacher's instructional strategy, of student instructional preferences, and of the teacher's behavior in class as actually observed.

The survey instrument for determining Teacher Instructional Strategy is a questionnaire to be filled out by the teachers. The teachers are asked to describe their instructional strategies in terms of goals, direction, structure, activation, and evaluation.

The Student Preference Inventory is a chacklist to be filled out by the students. It cellects information on students' long-range goals, classroom interaction preferences, and on the most and least liked classroom activities and materials.

Information collected on both these forms is measured on master forms as to whether it indicates a preference for directive, non-directive or mixed instruction. Instructional preference descriptions of both students and teachers are entered on the Teacher Instructional Strategy and Student Preference Inventory summaries. The summary results are compared on the Student/Teacher Match Chart which describes student/teacher match in terms of congruence of both instructional styles and goals.

A measure of the degree of student and teacher match is the first output of the model. The workbook includes guidelines for interpreting student/teacher match in the section titles, "Implications of Student/Teacher Match."

The Classroom Observation Guide is designed to help the evaluator observe critically some aspects of student/teacher interaction in the classroom. The guide covers the major categories of teacher in-class behavior, teacher questions, teacher involvement, student response, student attention, and classroom activities.

Information collected on the observation guide is entered on the Teacher Behavior/Student Response Bargraph. This bargraph is compared with a similar bargraph on which Suggested Standards for Evaluating Student Behavior and Student Response are described. The comparison of actual teacher behavior and student response to the suggested standards (or other standards developed by the evaluator or by the teachers themselves) will identify student achievement and motivation factors; this is the second major output of the model. Guidelines for interpreting these factors are included in the workbook.

The final model output is a determination, based on the Classroom

Activities section of the Classroom Observation Guide, of the teacher's success is covering curriculum content. In this section of the guide, classroom activities are categorized as to the degree to which they involve student participation.

Adequate curriculum coverage in each major subject area generally requires that students be involved in many different kinds of activities, ranging in the degree of student involvement from no participation at all to very major participation. Included in the workbook is a table of Typical Time Budgets for different kinds of acitivities in each major curriculum area. The teacher's actual time budget is compared with the typical time budgets, in order to determine whether the teacher is designing her classroom program so that students are adequately involved in activities at each participatory level.

Descriptions of survey instruments, instrument forms, output forms, and guidelines for interpreting outputs are included in the workbook package.

TEACHER EVALUATION WORKBOOK

The materials included in this package will help the user conduct an evaluation of elementary and secondary school teachers. The user can be an education specialist based outside the school or administrators and/or teachers within the school. The materials could also be adapted for student evaluation of teachers.

The evaluation model outlined here should be considered as a design for teacher evaluation. The model has not been field tested. Different users will probably want to develop the model further and modify the materials to suit their own needs.

Included are materials and directions for conducting both an Initial Evaluation and an In-Depth Evaluation. The focus of both the Initial and In-Depth Evaluations is the Teacher Observation Guide. This is presented on page 57 and is described on the following pages.

Since it is the teachers that are being evaluated, it would be desirable for the teachers to carry out the evaluation themselves as a faculty project or to work closely with administrators or educational specialists conducting the evaluation. This will both enlist the support of the teachers for evaluation and direct their attention to the different aspects of teaching considered in the model.

Initial Evaluation:

The Initial Evaluation is conducted to find out if an In-Depth evaluation is necessary and to illustrate that necessity or lack of it to concerned school staff or non-school administrators.

The process of the Initial Evaluation is a three-part process. Each part uses the Teacher Observation Guide (page 57) as a survey instrument.

In the first phase of the Initial Evaluation, teachers fill out the Teacher Observation Guide to describe the behavior of and student response elicited by the ideal teacher. This can be done in about half an hour.

Results for the total group should be averaged, and the averaged results should be recorded on a master teacher observation form.

In the second part of the process, teachers are asked to fill out the observation form to describe what they think are the ways they and their students actually behave in class. Again results should be averaged and recorded on a master form.

These first two parts of the process could be done at a faculty meeting. Descriptions of ideal and supposed actual teacher behavior and any differences between the two identified in the first two phases of the process could provide the basis of useful faculty discussion.

The third phase of the process is observation of actual teacher behavior. Observation can be done by one individual or a team of people from the administrative or instructional staffs. Each teacher should be observed for at least the duration of one lesson or class (approximately one hour).

Observers should make dry runs through the observation form before beginning formal teacher observation. This is done so that the observer can familiarize himself with the form and the types of behavior it asks him to consider and make any modifications in the form before beginning actual observation.

The output of teacher observation for the initial evaluation is a simple one. Observation results for the entire teacher group are averaged and recorded on a master observation form. If the descriptions of actual observed teacher behavior differ from the descriptions of supposed actual teacher behavior, it is a sign that In-Depth Evaluation would be useful.

It is possible that results of observed teacher behavior will be divided, with one group of teachers behaving very much like the description of the ideal teacher and the rest of the faculty differing from the ideal more extremely. In that case, In-Depth Evaluation may only need to be carried out on the teachers who are furthest from the ideal.

If the user decides to conduct an In-Depth Evaluation, he should keep the observation forms of each teacher to be evaluated in-depth. These will be used to generate a separate output for the In-Depth Evaluation process. (See Evaluating Teacher Behavior and Student Response, page 68.)

In-Depth Teacher Evaluation:

The In-Depth Evaluation is structured around the Teacher Evaluation Model. The major inputs to this model are the description of the Teacher

Instructional Strategy and the Student Preference Inventory.

The survey instrument for the Teacher Instructional Strategy is in the form of a questionnaire, to be filled out by the teachers. Teachers are asked to describe their instructional strategies in terms of goals, direction, structure, activation, and evaluation (see page 31).

The Student Preference Inventory is in the form of a checklist to be filled out by students. It will collect information on student long-range goals, classroom interaction preferences, and most and least liked classroom activities and materials.

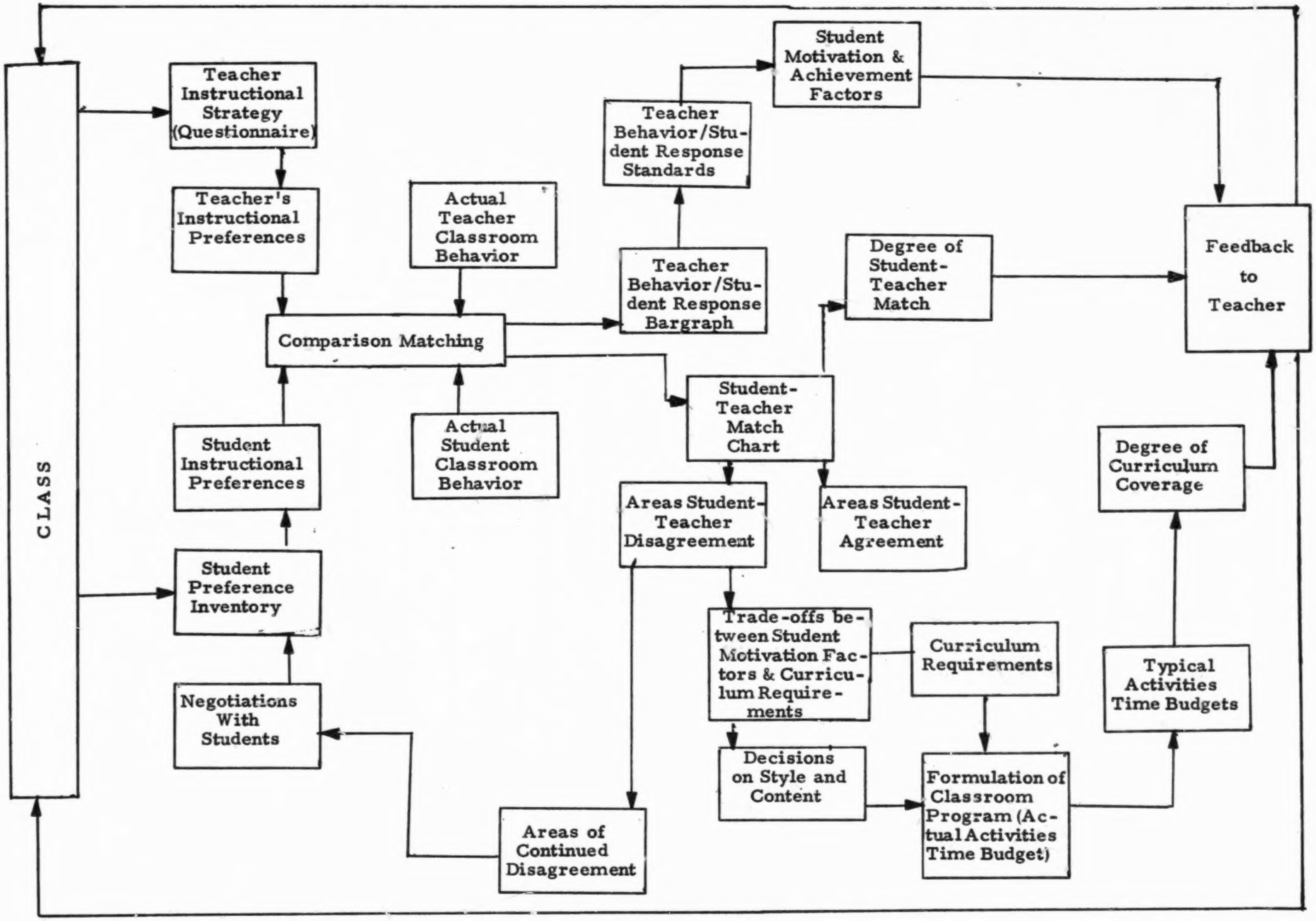
The outputs of the model are:

1. Degree of student-teacher match, based on a comparison of the Student Preference Inventory and the Teacher Instructional Strategy, to identify goal and instructional preference congruence.

2. Degree of curriculum coverage, based on teacher grades and the formulation of the classroom program, as described in the Classroom Activities section of the Teacher Observation Guide.

3. Identification of student motivation and achievement factors, based on the Teacher Observation Guide.

Descriptions of survey instruments, the forms themselves, output forms, and guidelines for interpreting output are presented on the following pages.


CLASS
Teacher Instructional Strategy (Questionnaire)
Teacher's Instructional Preferences
Actual Teacher Classroom Behavior
Comparison Matching
Actual Student Classroom Behavior
Student Instructional Preferences
Student Preference Inventory
Negotiations With Students
Teacher Behavior/Student Response Bargraph
Teacher Behavior/Student Response Standards
Student Motivation & Achievement Factors
Student-Teacher Match Chart
Degree of Student-Teacher Match
Areas Student-Teacher Disagreement
Areas Student-Teacher Agreement
Trade-offs between Student Motivation Factors & Curriculum Requirements
Curriculum Requirements
Decisions on Style and Content
Formulation of Classroom Program (Actual Activities Time Budget)
Typical Activities Time Budgets
Degree of Curriculum Coverage
Areas of Continued Disagreement
Feedback to Teacher

PROCESS FLOWCHART FOR IN-DEPTH TEACHER EVALUATION MODEL

Student Preference Inventory

The Student Preference Inventory collects information on student goals, interaction preferences, and most and least liked classroom activities and materials.

The Inventory is in the form of a checklist. Students should be asked to read through the list and mark liked and disliked items in the appropriate columns. The students of each teacher being evaluated should be asked to fill out the Inventory. The Inventory should be anonymous; students should not be asked to give their names. The Inventory should be filled out at the beginning of the In-Depth Evaluation process.

The Student Preference Inventory provides a way of identifying some of the students' attitudes about what they want to get out of school and the things they do and use in class. The ways students feel about these things will effect, to some degree, the success a teacher will have working with the students. This does not mean that a teacher's instructional style or way of working should be completely dictated by student preferences or that there should be total agreement between students and teacher about what to do and how to do it. But a good teacher will at least be aware of his students' likes and dislikes and will either take advantage of them or override them intelligently. The Student Preference Inventory provides a way of checking on a teacher's awareness of student attitudes and of bringing them to his attention if he was not aware of them before.

How to Administer the Student Preference Inventory:

The Student Preference Inventory can be self-administered for students of the upper elementary and secondary school levels (i.e., students whose reading skills are good).

Students in the lower elementary grades can be given a numbered sheet with numbers corresponding to each item on the inventory. Like and Dislike columns should run down the list of numbers as they do on the regular inventory. The teacher should then read out the items one at a time, telling the students the corresponding number of each item. He might say something like "Number One: Ask yourselves 'Do I like or dislike reading by myself at my desk?' If you like to do this, put a check in the first blank space next to number one. If you don't like to do this, put a check in the second blank space next to number one. If you neither like nor dislike reading by yourself at your desk, leave both spaces blank."

Anonymity is critical to quality of response. Respondents to questions often give the answers they think the questioner wants to hear. Students responding to questions administered by the teacher about their instructional preferences might be more inclined to do this than they would in another context. If the students know that their responses are anonymous, they might feel more free to express their true preferences. The importance of anonymity should be stressed to the teacher (or whoever may be administering the inventory in her place), and the teacher should stress the fact that the inventory is anonymous in his verbal instructions to the students.

The teacher should introduce the inventory to the students by telling them what it is for, i.e., to help him teach **better.** He might tell the students that if she knows something about what they like to do and use in class, he might be able to incorporate more of those things in his classroom program. He should point out that there will probably still be some things that they disagree on, but that they might be able to negotiate on these things.

Though the teacher doesn't have to, it would be useful for him to give students feedback on the results of the inventory. This is a good tactic psychologically, as the students won't feel that they have simply dropped something into a void. But more importantly, teacher feedback to the students could provide the basis for useful teacher-student discussions or negotiations of the kind referred to above. These discussions would help both teacher and students to feel that learning or instruction is something that they are undertaking together rather than something generated by the teacher and passively received by the students. In this way, the Student Preference Inventory serves as a device for creating change in the classroom completely outside of the context of the rest of the evaluation process.

Additional Use of the Student Preference Inventory:

The Student Preference Inventory could also be compared with the student response results of the Classroom Observation Guide to check if the students actually do like the things they indicated preference for on the inventory. Inconsistencies between actual student response to instructional factors and their indicated instructional preferences could generate useful student-teacher dialogue, or even provide the basis of a student evaluation which could be undertaken together by the teacher and his students.

What to Do with Results of the Student Preference Inventory:

Total class results of the Student Preference Inventory should be recorded on the master inventory; i.e., under classroom activities, if 10 students indicate they like reading by themselves at their desks and 15 indicate they do not, the number "10" should be entered next to that item on the master inventory and the number "15" entered in the Dislike column next to that item. This should be done for all items on the inventory.

"Dislike" responses should be subtracted from "Like" responses for each item and the plus or minus weight entered in the third column next to each item.

Each item on the master inventory has a letter (A, B, or C) associated with it. These letters describe whether the item is one indicating student preferences for teacher direction (A items), mixed direction and non-direction (B items), or non-direction (C items). The user should add the number of items of each type (A, B, or C) which have received plus weights and enter that figure under Total Number of Items column on the inventory summary; i.e., of the total number of activities, 5 of the A type received plus weights. The number "5" should be entered on the Inventory Summary under Total Average Number of A type activities. Do this for A, B, and C items in each inventory area (activities, materials, and interaction preferences).

The user should then multiply the number of items of each type by the given weight for that type and enter that figure in the Total Weight column. In the example above, students indicated preference for 5 items of the A type. The number "5" was entered under Total Number of A type activities on the Inventory Summary. A type activities have a given weight of +16.5. The number of items (5) is multiplied by the given weight per item (+16.5) to yield the total weight for A type activities, which would be +82.5.

Add the three figures in the total weight column in each inventory area to get the total average score for that area, and enter it in the space marked Total Average Score.

In the last section of the Inventory Summary, the three Total Average Scores for each area are added for a Total Score. The Total Score will be described as A, B, or C, indicating student preferences for directive, mixed directive and non-directive, or non-directive instructional styles. The letter describing student instructional preferences should be entered on the Student-Teacher Match Chart on page 50. This will later be compared with the findings of the Teacher Instructional Strategy to determine degree of student and teacher match.

Student Preference Inventory (Elementary School Students)

Please read through the following lists of classroom activities, materials, and ways of behaving in class. Mark all of the things you like by putting an "X" beside them in the LIKE column. Mark all of the things you don't like by putting an "X" beside them in the DON'T LIKE column. If there are some things you neither like nor dislike, you don't have to mark them at all.

Classroom Activities	LIKE	DON'T LIKE
-reading by myself at my desk	____	____
-reading out loud	____	____
-working by myself at my desk	____	____
-working with other kids	____	____
-listening to the teacher talk	____	____
-answering the teacher's questions	____	____
-watching teacher explain things at the black board	____	____
-writing	____	____
-doing problems at the black board	____	____
-taking tests	____	____
-taking care of pets and plants	____	____
-having contests with other kids	____	____
-playing games	____	____
-playing with toys	____	____
-painting and drawing	____	____
-singing	____	____
-dancing	____	____
-listening to music	____	____
-doing experiments	____	____
-building things	____	____
-watching movies	____	____
-giving reports in front of the class	____	____

Materials and Media		
-School Books		
reading	____	____
spelling	____	____
arithmetic	____	____
language	____	____
science	____	____

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-Work Books		
reading	____	____
arithmetic	____	____
-Story Books	____	____
-Magazines and Comic Books	____	____
-Slides	____	____
-Tape Recorder	____	____
-Records	____	____
-Toys	____	____
-Games	____	____
-Crayons and Paints	____	____
-Paper and Pencil	____	____
-Movies	____	____
-Animals and Plants	____	____
-Pictures	____	____
-Blackboard	____	____
-Bulletin Board	____	____
-Television	____	____
-Musical Instruments	____	____
-Other	____	____
-________________	____	____
-________________	____	____

Ways of Doing Things in Class

-answering question when teacher calls on me	____	____
-shouting out the answer without being called on	____	____
-saying an answer when other kids say it at the same time	____	____
-not answering a question at all	____	____
-getting help from the teacher		
B-raising my hand and asking teacher question	____	____
B-raising my hand for teacher to come help me at my desk	____	____
A-going to teacher's desk to get help	____	____
-getting help from other kids	____	____
-working or playing by myself	____	____
-working or playing with a few other kids and the teacher	____	____
-working or playing with a few other kids and no teacher	____	____
-working or playing with one other kid	____	____

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-working or playing only with the teacher	____	____
-helping other kids	____	____
-working in front of the class at the blackboard	____	____
-sitting with other people in a circle or around a table	____	____
-sitting at my desk all the time	____	____
-working and playing in different parts of the room at different times	____	____
-going to different places in the school or outside the school to do different things	____	____
-working or playing with the same kids all the time	____	____
-working or playing with different kids different times	____	____

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school ____

I want to stay in school until I am old enough to leave even though I may not graduate from high school ____

When I get out of school, I want to:

get a job right away ____
go into a vocational training program ____
go to college for four years ____
go to college for more than four years to become something like a doctor or a lawyer ____
live near home ____
live far away from home ____

Master Student Preference Inventory (Elementary School Students)

Enter total class results for each item under the appropriate column (i.e., 10 students indicate they like reading by themselves at their desks, and 15 indicate they do not). Do this for all items on the inventory.

Subtract "Dislike" responses from "Like" responses for each item and enter the plus or minus weight in the third column next to each item (i.e., 15 Dislikes subtracted from 10 Likes produces a minus weight for this item).

Each item on the Master Inventory has a letter (A, B, or C) associated with it. Within each inventory category (activities, materials, and interaction preferences), add the number of items of each type which have received plus weights and enter that figure under the corresponding Total Number of Items column on the inventory summary. This should be done for all A, B, and C type items in each inventory category.

Classroom Activities	LIKE	DON'T LIKE	± WEIGHT
B-reading by myself at my desk			
A-reading out loud			
B-working by myself at my desk			
B-working with other kids			
A-listening to the teacher talk			
A-answering the teacher's questions			
A-watching teacher explain things at the black board			
B-writing			
A-doing problems at the black board			
A-taking tests			
B-taking care of pets and plants			
B-having contests with other kids			
B-playing games			
C-playing with toys			
C-painting and drawing			
B-singing			
B-dancing			
C-listening to music			
B-doing experiments			
C-building things			
B-watching movies			
B-giving reports in front of the class			

Materials and Media			
A-School Books			
reading			
spelling			
arithmetic			
language			
science			

Master Stud~~ent~~ Preference Inventory - 2	LIKE	DON'T LIKE	± WEIGHT
A-Work Books			
reading			
arithmetic			
B-Story Books			
B-Magazines and Comic Books			
B-Slides			
B-Tape Recorder			
B-Records			
C-Toys			
B-Games			
C-Crayons and Paints			
B-Paper and Pencil			
A-Movies			
C-Animals and Plants			
B-Pictures			
B-Blackboard			
B-Bulletin Board			
A-Television			
C-Musical Instruments			
-Other			
-____________________			
-____________________			

Ways of Doing Things in Class

A-answering question when teacher calls on me			
C-shouting out the answer without being called on			
A-saying an answer when other kids say it at the same time			
B-not answering a question at all			
-getting help from the teacher			
B-raising my hand and asking teacher question			
B-raising my hand for teacher to come help me at my desk			
A-going to teacher's desk to get help			
B-getting help from other kids			
C-working or playing by myself			
B-working or playing with a few other kids and the teacher			
C-working or playing with a few other kids and no teacher			
C-working or playing with one other kid			

	LIKE	DON'T LIKE	± WEIGHT
B-working or playing only with the teacher			
C-helping other kids			
A-working in front of the class at the blackboard			
B-sitting with other people in a circle or around a table			
B-sitting at my desk all the time			
C-working and playing in different parts of the room at different times			
C-going to different places in the school or outside the school to do different things			
A-working or playing with the same kids all the time			
C-working or playing with different kids different times			

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school ______

I want to stay in school until I am old enough to leave even though I may not graduate from high school ______

When I get out of school, I want to:

get a job right away ______
go into a vocational training program ______
go to college for four years ______
go to college for more than four years to become something like a doctor or a lawyer ______
live near home ______
live far away from home ______

STUDENT PREFERENCE INVENTORY SUMMARY

(Elementary School Level)

Under the Total Number of Items column in each category, enter the number of items of each type which have received plus weights on the master inventory. Multiply this number by the given weight for each type item and enter this figure in the Total Weight column. Do this for each type item in each category.

Add the three figures in the total weight column in each inventory category to get the Average Score for that category. Enter this figure in the space marked Average Score.

In the last section of the Inventory Summary, add the three Average Scores for each area and divide by three (the number of areas) to get a Total Average Score. The Total Average Score will be described A, B, or C indicating student preferences for directive, mixed directive and non-directive, or non-directive instructional styles. The letter describing student instructional preferences should be entered on the Student-Teacher Match Chart on page 50. This will later be compared with the findings of the Teacher Instructional Strategy to determine the degree of student and teacher match.

Materials

	Total # of Items	Weight/Item		Total Weight
Total average number of A materials	____	x +25	=	____
B	____	x 0	=	0
C	____	x -25	=	____

Average Score ____

Each A material carries a weight of +25
B 0
C -25

If the average materials score falls between ± 50, the students tend to prefer mixed directive and non-directive materials.

If the average materials score falls above +50, the students tend to prefer direct materials.

If the average materials score falls below -50, the students tend to prefer non-direct materials.

Activities

	Total # of Items	Weight/Item		Total Weight
Total average number of A	____	x +16.5	=	____
B	____	x 0	=	0
C	____	x -25	=	____

Average Score ____

Each A activity carries a weight of +16.5
B 0
C -25

If the average activities score falls between ± 50, students tend to prefer mixed directive and non-directive activities.

If the average activities score falls above +50, students tend to prefer directive activities.

If the average activities score falls below -50, students tend to prefer non-directive activities.

Student Preference Inventory Summary (Elementary)

Interaction Preferences

	Total # of Items	Weight/Item	2 Total Weight
Total average number of A preferences	____	x +20	= ____
B	____	x 0	= 0
C	____	x -12.5	= ____
	Average Score		____

Each A preference carries a weight of +20
B 0
C -12.5

If the average interaction preference score falls between ±50, students tend to prefer mixed directive and non-directive interaction.

If the average interaction preference score falls above +50, students prefer directive interaction.

If the average interaction preference score falls below -50, students tend to prefer non-directive interaction.

TOTAL AVERAGE SCORE:

Materials ____
Activities ____
Interaction ____
TOTAL ____/3 = ____ TOTAL AVERAGE SCORE

If Total Average Score falls between ±50: A
If Total Average Score falls above +50: B
If Total Average Score falls below -50: C

Student Preference Inventory (Secondary School Students)

Please read through the following lists of classroom activities, materials, and ways of behaving in class. Mark all of the things you like by putting an "X" beside them in the LIKE column. Mark all of the things you don't like by putting an "X" beside them in the DON'T LIKE column. If there are some things you neither like nor dislike, you don't have to mark them at all.

Classroom Activities	LIKE	DON'T LIKE
-listening to the teacher talk	____	____
-answering teacher's questions	____	____
-reading out loud	____	____
-reading to myself	____	____
-doing problems on the blackboard	____	____
-doing problems or exercises	____	____
-writing compositons or papers	____	____
-doing lab experiments	____	____
-watching the teacher do experiments	____	____
-watching teacher demonstrate problems at the blackboard	____	____
-taking tests	____	____
-doing research	____	____
-playing games or having contests in class	____	____
-singing	____	____
-drawing or painting	____	____
-making things in home economics or shop	____	____
-listening to music	____	____
-watching movies or television in class	____	____
-having discussions in class	____	____
-giving reports in front of the class	____	____

Materials and Media		
-textbooks	____	____
-workbooks	____	____
-library books	____	____
-pictures	____	____
-magazines	____	____
-newspapers	____	____
-slides	____	____

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-movies	____	____
-tape recorder	____	____
-records	____	____
-art materials	____	____
-musical instruments	____	____
-paper and pencil	____	____
-plants and animals	____	____
-television	____	____
-games	____	____
-shop equipment	____	____
-lab equipment	____	____
-business machines	____	____
-home economics facilities	____	____
-other	____	____
-______________________	____	____
-______________________	____	____

Interaction Preferences

-answering question when teacher calls on me	____	____
-shouting out the answer without being called on	____	____
-saying an answer when other kids say it at the same time	____	____
-not answering a question at all	____	____
-getting help from the teacher	____	____
B-raising my hand and asking teacher question	____	____
B-raising my hand for teacher to come help me at my desk	____	____
A-going to teacher's desk to get help	____	____
-getting help from other kids	____	____
-working or playing by myself	____	____
-working or playing with a few other kids and the teacher	____	____
-working or playing with a few other kids and no teacher	____	____
-working or playing with one other kid	____	____
-working or playing only with the teacher	____	____
-helping other kids	____	____
-working in front of the class at the blackboard	____	____
-sitting with other people in a circle or around a table	____	____
-sitting at my desk all the time	____	____

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-working and playing in different parts of the room at different times	____	____
-going to different places in the school or outside the school to do different things	____	____
-working or playing with the same kids all the time	____	____
-working or playing with different kids different times	____	____

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school ____

I want to stay in school until I am old enough to leave even though I may not graduate from high school ____

When I get out of school, I want to:

get a job right away ____
go into a vocational training program ____
go to college for four years ____
go to college for more than four years to become something like a doctor or a lawyer ____
live near home ____
live far away from home ____

Master Student Preference Inventory (Secondary School Students)

Enter total class results for each item under the appropriate column (i.e., 10 students indicate they like reading by themselves at their desks, and 15 indicate they do not). Do this for all items on the inventory.

Subtract "Dislike" responses from "Like" responses for each item and enter the plus or minus weight in the third column next to each item. (i.e., 15 Dislikes subtracted from 10 Likes produces a minus weight for this item).

Each item on the Master Inventory has a letter (A, B, or C) associated with it. Within each inventory category (activities, materials, and interaction preferences), add the number of items of each type which have received plus weights and enter that figure under the corresponding Total Number of Items column on the inventory summary. This should be done for all A, B, and C type items in each inventory category.

Classroom Activities	LIKE	DON'T LIKE	± WEIGHT
A-listening to the teacher talk			
A-answering teacher's questions			
A-reading out loud			
B-reading to myself			
A-doing problems on the blackboard			
A-doing problems or exercises			
B-writing compositons or papers			
B-doing lab experiments			
A-watching the teacher do experiments			
A-watching teacher demonstrate problems at the blackboard			
A-taking tests			
B-doing research			
B-playing games or having contests in class			
B-singing			
C-drawing or painting			
B-making things in home economics or shop			
C-listening to music			
B-watching movies or television in class			
C-having discussions in class			
B-giving reports in front of the class			

Materials and Media

A-textbooks			
A-workbooks			
B-library books			
B-pictures			
B-magazines			
B-newspapers			
B-slides			

Master Student Preference Inventory - 2

	LIKE	DON'T LIKE	± WEIGHT
A-movies			
B-tape recorder			
B-records			
C-art materials			
C-musical instruments			
B-paper and pencil			
C-plants and animals			
A-television			
B-games			
B-shop equipment			
B-lab equipment			
A-business machines			
B-home economics facilities			
-other			
-________________________			
-________________________			

Interaction Preferences

	LIKE	DON'T LIKE	± WEIGHT
A-answering question when teacher calls on me			
C-shouting out the answer without being called on			
A-saying an answer when other kids say it at the same time			
B-not answering a question at all			
-getting help from the teacher			
B-raising my hand and asking teacher question			
B-raising my hand for teacher to come help me at my desk			
A-going to teacher's desk to get help			
B-getting help from other kids			
C-working or playing by myself			
B-working or playing with a few other kids and the teacher			
C-working or playing with a few other kids and no teacher			
C-working or playing with one other kid			
B-working or playing only with the teacher			
C-helping other kids			
A-working in front of the class at the blackboard			
B-sitting with other people in a circle or around a table			
B-sitting at my desk all the time			

	LIKE	DON'T LIKE	± WEIGHT
C-working and playing in different parts of the room at different times			
C-going to different places in the school or outside the school to do different things			
A-working or playing with the same kids all the time			
C-working or playing with different kids different times			

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school _____

I want to stay in school until I am old enough to leave even though I may not graduate from high school _____

When I get out of school, I want to:

get a job right away _____
go into a vocational training program _____
go to college for four years _____
go to college for more than four years to become something like a doctor or a lawyer _____
live near home _____
live far away from home _____

STUDENT PREFERENCE INVENTORY SUMMARY

(Secondary School Level)

Under the Total Number of Items column in each category, enter the number of items of each type which have received plus weights on the master inventory. Multiply this number by the given weight for each type item and enter this figure in the Total Weight column. Do this for each type item in each category.

Add the three figures in thetotal weight column in each inventory category to get the Average Score for that category. Enter this figure in the space marked Average Score.

In the last section of the Inventory Summary, add the three Average Scores for each area and divide by three (the number of areas) to get a Total Average Score. The Total Average Score will be described A, B, or C indicating student preferences for directive, mixed directive and non-directive, or non-directive instructional styles. The letter describing student instructional preferences should be entered on the Student-Teacher Match Chart on page 50. This will later be compared with the findings of the Teacher Instructional Strategy to determine the degree of student and teacher match.

Materials

	Total # of Items	Weight Item		Total Weight
Total average number of A materials		x +20	=	
B		x 0	=	0
C		x -33	=	

Average Score ______

Each A material carries a weight of +20
B 0
C -33

If the average materials score falls between ±50, students tend to prefer mixed directional and non-directional activites.

If the average materials score falls above +50, students prefer directional materials.

If the average materials score falls below -50, students prefer non-directional materials.

Activities

	Total # of Items	Weight/ Item		Total Weight
Total average number of A activities		x +12.5	=	
B		x 0	=	0
C		x -33.3	=	

Average Score ______

Each A activity carries a weight of +12.5
B 0
C -33

If the average activities score falls between ±50, the students preferences are mixed directional.

If the average activities score falls above +50, the students prefer directive activities.

If the average activities score falls below -50, the students prefer non-directional activities.

Student Preference Inventory Summary (Secondary)

2

Interaction Preferences

	Total # of Items	Weight/ Item	Total Weight
Total average number of A preferences	____	x +20	= ____
B	____	x 0	= 0
C	____	x -12.5	= ____
		Average Score	____

Each A preference carries a weight of +20
B 0
C -12.5

If the average interaction preference score falls between ±50, students tend to prefer mixed directive and non-directive interaction.

If the average interaction preference score falls above +50, students prefer directive interaction.

If the average interaction preference score falls below -50, students prefer non-directive interaction.

TOTAL AVERAGE SCORE:

Materials ____
Activities ____
Interaction ____
TOTAL ____/3 = ____ TOTAL AVERAGE SCORE

If Total Average Score falls between ±50: A
If Total Average Score falls above +50: B
If Total Average Score falls below -50: C

Teacher Instructional Strategy

The five major components of the Teacher Instructional Strategy are: Goals, Direction, Structure, Activation, and Evaluation.* Having the teacher describe his strategy is a good way of getting him to think about what he is trying to do and how he plans to do it. The strategy descirption will be compared with the Student Preference Inventory to determine degree of student-teacher match.

The teacher describes his strategy through a questionnaire. Elementary school teachers and secondary school teachers who work in more than one subject area should describe their instructional strategies for each subject area.

The teacher should define short-range goals (for the school year) across four general areas: academic skills, cognitive skills, social skills, and motivation. These categories are not rigid and mutually exclusive. They simply indicate the spectrum of things about which the teacher should be thinking.

Generally, academic skill goals refer to the simple operations a student should be able to perform at each grade level. Cognitive goals refer more to the concepts and analytical skills that a student should acquire at each grade level. To fill out this part of the strategy description, the teacher should refer to the state standards as well as the standards published by text book writers or curriculum. However, the teacher should not limit himself to outside standards but should be encouraged to add or adapt goals of his own wherever relevant.

Social goals refer to how the teacher would like the students to interact in class (both among themselves and with him) and to his desires for student deportment.

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*Outline of Teacher Instructional Strategy adapted from Bar-Yam, Miriam Westreick, The Interaction of Instructional Strategies with Students' Characteristics, Unpublished Thesis, Graduate School of Education, Harvard University, 1968.

Teacher goals for student motivation could include such things as helping students to show more iniative (speaking out more in class, etc.), to display more originality in their work, to do higher quality work, and to decrease student absences and tardiness, etc.

All of the short-range goals should be defined specifcally so that the teacher can easily measure progress toward goal achievement. A teacher may wish that his students become well rounded individuals. In spite of the good intention of this desire, it is difficult to measure student progress in this direction unless the teacher defines very clearly all of the elements of well-roundedness and measures student progress for each.

Long range goals refer to teachers' desires for the students after they leave school. These will be more general and are not intended for evaluating student progress but rather for comparing congruity of student and teacher long-range objectives. A teacher may wish that his students will find steady employment immediately upon graduating from high school, while his students indicate a desire to go on to college and train for professional careers. The teacher's lower expectations for her students could affect student motivation and in turn quality of student performance in school, and even whether or not a student remains in school.

Direction: This section of the strategy description identifies whether or not direction comes primarily from the teacher or from the students. Chances are the direction will be mixed. The instrument will help the evaluator identify under what circumstances the students or the teacher control the direction of the class, what the teacher relies on for direction, and how the teacher interacts with sources of direction outside herself.

Structure: The information collected in this section of the strategy description will help the evaluator determine if the teacher prefers to run a tightly or loosely structured class. If his instructional style varies, the instrument will help the evaluator determine under which circumstances he uses which style and who or what is most influential in getting him to change styles.

Activation: This section identifies who--teacher or student--initiates activities and under what circumstances. It also collects information on who or what influences teacher's choice of activities, which activities the teacher uses most often, which materials the teacher uses in class activities, and the teacher's interaction preferences.

The section on Evaluation identifies who is responsible for evaluating student performance in the class, evaluation criteria, and their relative importance as components of the student's grades.

How to Use the Teacher Instructional Strategy:

The Teacher Instructional Strategy Questionnaire (page 31) should be filled out by the teacher at approximately the same time as the students fill out the Preference Inventory. Give the teacher a copy of the questionnaire as well as the description of the strategy on the preceding pages. The teacher should fill out the questionnaire privately and should be allowed enough time to give thoughtful consideration to his responses. It will probably take about two hours for the teacher to do this.

The results of the Teacher Instructional Strategy will be compared with the results of the Student Preference Inventory to determine the degree of student-teacher match. Results of the Teacher Instructional Strategy should be entered by the evaluator on the Teacher Instructional Strategy Summary (page 41). Directions for doing this are on the Summary Form.

Teacher Instructional Strategy Questionnaire

Name:____________________

Grade level:________________

Subject:____________________

Short-range goals:

On the following chart, please define your goals for this year across the general areas of academic skills, cognitive skills, social skills, and motivation. These categories are not necessarily rigid and mutually exclusive. They simply indicate the spectrum of things about which you should be thinking.

Generally, academic skills goals refer to the simple operations a student should be able to perform at each grade level.

Cognitive goals refer more to the concepts and analytical skills that a student should acquire at each grade level. To fill out this part of the questionnaire, refer to state standards for curriculum coverage as well as to the standards published by the text book authors or curriculum designers in the area in which you are teaching. You need not limit yourself to these standards, and are encouraged to add or adapt goals of your own wherever relevant.

Social goals refer to how you would like your students to interact--both among themselves and with you--and to your desires for student deportment in general.

Motivation goals should include such things as getting students to show more initiative (speaking out more in class, etc.), displaying more originality in their work, motivating students to do better quality work, and decreasing student absences and tardiness.

SHORT-RANGE GOALS

	ACADEMIC SKILLS	COGNITIVE SKILLS	SOCIAL SKILLS	MOTIVATION
Examples	Get students to write a coherent term paper	Get students to understand difference between civil rights & civil liberties	Get students to talk to each other in group discussion rather than to me	Decrease student tardiness by 50 percent

Long-Range Goals:

Please read over the following list of long-range goals. Rate the goals you think are the highest priority with a 2. Rate the middle priority goals with a 1; and rate the lowest priority goals with a 0.

Preparing students to get jobs immediately after high school ______

Preparing students to enter vocational training programs ______

Preparing a few students to go on to college ______

Preparing students for highly professional jobs (doctors, lawyers, engineers, etc.) ______

Preparing students to live successfully on the reservation ______

Preparing students to integrate with Anglo culture ______

Teacher Questionnaire:

The following questionnaire asks several questions about your style of instruction. The results of this questionnaire will later be compared with the results of the Student Preference Inventory filled out by your students. The comparison will indicate how well your instructional style is matched with the instructional preferences of your students. Allow yourself about an hour to fill out the questionnaire so that you can give thoughtful consideration to your responses.

Instructional Style

Please check the box or blank spaces beside the items which most closely describe your instructional style. If you select more than one item, please rank order your selections. You may choose up to three items.

1. Direction:

	10	30	50	80	100	%of the time
1.1 I provide the direction for this course	☐	☐	☐	☐	☐	

If the answer falls within middle range of spectrum, please check circumstances under which you provide direction.

____ When I really want to get something done

____ When students are unmotivated and are progressing too slowly

____ When students are jumping ahead too fast or illogically

____ Only at the beginning of new study units

____ Other

1.2 Students provide the direction for this course

10	30	50	80	100 % of the time

If answer falls within middle range of spectrum, please check circumstances under which students provide direction

____ When I have covered all the necessary work and we have some extra time

____ When they are motivated and excited by an idea and I want to tap their excitement

____ When I am frustrated with trying to get them to do what I want them to do

____ When I am worried about pushing them through the work too quickly

____ Other

1.3 For direction I rely most heavily on

____ My own ideas about how the course should be taught

____ The text book or curriculum outline

____ The ideas of my supervisor

____ The ideas of other teachers

____ Ideas I have read about in journals and books

____ Other

1.4 10 | 30 | 50 | 80 | 100 % of the time I use the curriculum outline only as a reference for doing things my own way

1.5 10 | 30 | 50 | 80 | 100 % of the time I diverge from the text book or curriculum outline.

1.6 10 | 30 | 50 | 80 | 100 % of the time I criticize myself or the text book in front of the students

1.7 10 | 30 | 50 | 80 | 100 % of the time I allow students to criticize me or the textbook

1.8 10 | 30 | 50 | 80 | 100 % of the time I encourage students to criticize me or the text book.

2. Structure:

Please check the item or items (up to three items) which are most descriptive of the way you work. If some are irrelevant, please cross them out. If you check more than one item, please rank order your selections from most often to least often used style.

2.1 ____ In each class I try to present information and concepts in a clear and logical order

____ I generally try to follow a logical progression of information and concepts for the whole course, but structure my day-to-day teaching more loosely depending on the mood of the students

____ I try to present information and concepts within a subject area to the students as they need them or seem especially receptive to them even though that means I may not know exactly what I'll be teaching from one week to the next

____ I try to present information and concepts across all subject areas to the students as they need them or seem especially receptive to them even though that means we may start discussing social studies in the middle of what started out to be a science lesson

____ Other

2.2 When I change from a tightly structured style to a more loosely structured one, it is usually because:

____ I am bored

____ I am tired of planning everything out very carefully

____ My supervisor has suggested that I change styles

____ I have been inspired to change from having talked to or observed other teachers

____ I have been inspired to change from having read something in a book or journal

____ The students seemed bored

____ The students get very excited about an idea that's not included in the lesson plan and I want to help them understand it while their motivation is high

(2.2 continued)

____ The students are progressing too slowly

____ The students are progressing too quickly

____ I just can't be that organized all the time

____ Other

2.3 When I change from a loosely structured style to a more tightly structured one it is usually because

____ The students are progressing slowly

____ The students are progressing too quickly

____ I am having trouble keeping the class in order

____ My supervisor has suggested that I change styles

____ I have been inspired to change from having talked to or observed another teacher

____ I have been inspired to change from having read something in a book or journal

____ I found I need to work within a less ambiguous framework

____ Other

3. Activation:

3.1 I initiate class activities 10 30 50 80 100 % of the time.

If answer falls within middle range of spectrum, please check circumstances under which you initiate activities

____ When I really want to get something done

____ When students are sluggish and I want to get them busy

____ When students are unruly, and I want to settly them down

____ When we have a visitor in class, and I want to make sure everything runs smoothly

____ Other

3.2 Students initiate class activities 10 30 50 80 100 % of the time.
☐☐☐☐☐

If answer falls within middle range of spectrum, please check circumstances under which students intiate activities.

____ When I have covered all the necessary work, and we have some extra time.

____ On special occasions like right before vacations

____ When they have been especially good and I want to reward them

____ When they are really excited about doing something and I want to take advantage of their motivation

____ When I am tired or bored

____ When I think they have a better idea about what to do than I have

____ Other

3.3 I get most of my ideas for activities from

____ Teachers' guide

____ Supervisor

____ myself

____ Other teachers

____ Books and articles

____ The kids

____ Other

3.4 I usually plan activities that will

____ Best help me teach the concepts and skills within the subject area

____ To meet the needs of the slower students

____ To meet the needs of the brighter students

____ To meet the needs of the average students

____ That will keep the class orderly and manageable

____ Be novel for the students and excite their curiosity

____ Other

3.5 When more than one activity is going on in the class at the same time, it is usually because

____ I have more than one grade in the same room

____ I want to keep the rest of the kids busy while I'm giving my attention to a small group within the class

____ I am trying to tailor activities to meet the needs of students of different achievement levels within the class

____ Different groups of students like to do different things, and I want to take advantage of their motivation

____ I simply find it exciting to have a couple of activities going on at one time

____ Other

3.6 When I teach this course I usually like to

____ Work with the whole class at once

____ Divide the class into several small groups and work with one group at a time

____ Walk around the class and help each student personally

____ Get the students to help each other

____ Sit at my desk while the students are working and have them come to me for help

____ Other

3.7 When I ask the class questions I usually like to

____ designate a student to anwer a question before I ask it

____ Let any student call out the answer

____ Ask a question and call on whoever raises their hand

____ Ask a question and have the students respond en masse

____ Ask a question and designate a student to answer it whether he raises his hand or not

____ Other

3.8 Please rank order the three activities you use most in teaching this course.

____ Lecturing or talking in front of the class

____ Question and answer sessions with the whole class

____ Group discussion with the whole class

____ Breaking class into several small discussion groups

____ Breaking class into several small work groups

____ Have kids do programmed work at desk (workbooks, written exercises, etc.)

____ Have kids do non-programmed work at desks (write essay, etc.)

____ Have kids work at the black board while rest of class watches

____ Demonstrating experiments for whole group

____ Supervising student lab work (science lab, shop, home ec)

____ Having students read aloud to rest of class

____ Having students read to themselves at their desks

____ Having contests and playing games

____ Other

3.9 Please read through the following list of classroom materials and media. Rank order the three items you use most.

Elementary School

____ text book
____ workbook
____ story books
____ magazines and comic books
____ movies
____ slides
____ tape recorder
____ records
____ toys
____ games
____ art materials
____ paper and pencil
____ blocks
____ pictures
____ animals, plants, other natural things
____ black board
____ bulletin board
____ television
____ musical instruments
____ lab equipment
____ other ____________
____
____

Secondary School

____ text book
____ workbook
library books
  ____ reference
  ____ fiction
  ____ nonfiction
____ pictures
____ magazines
____ newspapers
____ slides
____ movies
____ tape recorder
____ records
____ art materials
____ musical instruments
____ paper and pencil
____ plants, animals, other natural things
____ television
____ games
____ shop equipment
____ lab equipment
____ business machines
____ home ec facilities
____ sports equipment
____ other ____________
____
____

4. Evaluation

4.1 I am responsible for evaluation of student performance

10	30	50	80	100	% of the time.
☐	☐	☐	☐	☐	

4.2 Please read through the following list of student evaluation factors. Rank order the three items you use most when you are making up student grades.

student performance on periodic tests
____ standardized
____ that I make up

____ correctness of answers on programmed work (done in class or as homework)

____ content only of non-programmed work

____ correctness of form, neatness, etc., of student work

____ originality of student work

____ oral performance in class

____ student effort

____ student deportment in class

____ Other ____

Teacher Instructional Strategy Summary

TIS Area	Item	Description						
		A	B	C				
Direction	1.1							
	1.2							
	1.3							
	1.4							
	1.5							
	1.6							
	1.7							
	1.8							
					Subtotal Average (Circle one)	A	B	C
Structure	2.1							
	2.2							
	2.3							
					Subtotal Average (Circle one)	A	B	C
Activation	3.1							
	3.2							
	3.3							
	3.4							
	3.5							
	3.6							
	3.7							
	3.8							
	3.9							
					Subtotal Average (Circle one)	A	B	C
Evaluation	4.1							
	4.2							
					Subtotal Average (Circle one)	A	B	C
					TOTAL RESULTS (Circle one)	A	B	C

Directions:

The teacher's responses to the Teacher Instructional Strategy Questionnaire should be recorded on this Summary. Use the attached Master Questionnaire to identify the type of instructional style (A, B, or C) described by the teacher in his response to each item.

Some of the questions on the Teacher Instructional Strategy Questionnaire are two-part questions. If the teacher answers the first part of the question in a certain way, he is referred to the second part of the question. For example, question 1.1: "I provide direction for this course 10%, 30%, 50%, 80%, 100% of the time." Responses at either end of the percentage scale are clearly A or C type responses. A teacher response of 50% would seem to indicate that his direction is mixed. However, before determining this, teacher responses to the second part of the question should be checked. Here the teacher may indicate

that he provides direction "when I really want to get something done," which is described as an A type response and indicates that when the teacher is really involved in the business of teaching, which is the issue here, he tends to be directive. This would make his response to question 1.1 an A type response.

On other items in the Teacher Instructional Strategy, the teacher may select more than one response. Multiple answers are rank ordered. If all of the teacher's responses are of the same type, there is no problem.

In multiple response questions where the teacher has selected more than one response type, each priority response receives a rank weight and each type response receives a factor weight. The rank weights are .5 for highest priority response, .3 for second priority response, and .2 for all lower priority responses. The factor weights are 1 for A type responses, 2 for B type responses, and 3 for C type responses.

To determine the type response for the whole question, multiply the factor weights of the responses by their rank weights and add the products. The response type for the whole question is the type which has the factor weight closest to this sum.

For example: in question 2.2, the teacher is asked to indicate under what circumstances he changes from a tightly structured to a more loosely structured style. The teacher may select the following responses in the following rank order:

1. Students are progressing too slowly
2. I have been inspired to change from having talked to or observed other teachers
3. I have been inspired to change from having read something in a book or journal

His highest priority (rank weight .5) is an A type response (factor weight 1). His second priority (rank weight .3) is a B type response (factor weight 2). His third priority response (rank weight .2) is also a B type (factor weight .5)

$.5(1) + .3(2) + .2(2) = .5 + .6 + .4 = 1.5$

This figure comes closest to 2, which is the factor weight of B type responses. His response for the total question is then a B type response.

TEACHER INSTRUCTIONAL STRATEGY

MASTER FORM

To the User:

Each item on the Teacher Instructional Strategy Questionnaire is described here as A (indicative of directive instructional style), B (indicative of mixed directive and non-directive instructional style), or C (indicative of non-directive instructional style). When filling out the Teacher Instructional Strategy Summary, refer to this Master to identify the type of instructional style described by the teacher in his response to each item.

Instructional Style

Please check the box or blank spaces beside the items which most closely describe your instructional style.

1. Direction:

1.1 I provide the direction for this course

10	30	50	80	100% of the time
C	C	B	A	A

If answer falls within middle range of spectrum, please check circumstances under which you provide direction.

A when I really want to get something done
A when students are unmotivated and are progressing too slowly
A when students are jumping ahead too fast or illogically
B only at the beginning of new study units
___ other: ______________________________

1.2 Students provide the direction for this course

10	30	50	80	100% of th tim
A	A	B	C	C

If answer falls within the middle range of spectrum, please check circumstances under which students provide direction.

A when I have covered all the necessary work and we have some extra time
C when they are motivated and excited by an idea and I want to tap their excitement
A when I am frustrated with trying to get them to do what I want them to
C when I am worried about pushing them through the work too quickly
___ other: ______________________

1.3 For direction, I rely most heavily on

If answer falls within the middle range of spectrum, please check circumstances under which students provide direction.

B my own ideas about how the course should be taught
A the text book or curriculum outline
A the ideas of my supervisor
B the ideas of other teachers
C ideas I have read about in journals and books
___ other: ______________________________

	10	30	50	80	100%	
1.4	A	A	B	B	B	of the time I use the curriculum outline only as a reference for doing thins my own way.

	10	30	50	80	100%	
1.5	A	A	B	B	C	of the time I diverge from the text book or curriculum outline.

	10	30	50	80	100%	
1.6	A	A	B	B	C	of the time I criticize myself or the text book in front of the students.

	10	30	50	80	100%	
1.7	A	A	B	B	C	of the time I allow students to criticize myself or the text book.

	10	30	50	80	100%	
1.8	A	A	B	B	C	of the time I encourage students to critize myself or the text book.

2. Structure:

Please check the item or items which are most descriptive of the way you work. If some are irrelevant, please cross them out. If you check more than one item, please rank order your selections from most often to least often used style.

2.1 A In each class I try to present information and concepts in a clear and logical order.
B I generally try to follow a logical progression of information and concepts for the whole course, but structure my day-to-day teaching more loosely depending on the mood of the students.
C I try to present information and concepts within a subject area to the students as they need them or seem especially receptive to them, even though that means I may not know exactly what I'll be teaching from one week to the next.
C I try to present information and concepts across all subject areas to the students as they need them or seem especially receptive to them even though that means we may start discussing social studies in the middle of what started out to be a science lesson.

2.2 When I change from a tightly structured style to a more loosely structured style, it is usually because

A I am bored
A I am tired of planning everything out very carefully
A my supervisior has suggested I change styles
B I have been inspired to change from having talked to or observed other teachers
B I have been inspired to change from having read something in a book or journal
C the students seemed bored
C the students get very excited about an idea that's not included in the lesson plan and I want to help them understand it while their motivation is high

2.2 continued...

A the students are progressing too slowly
A the students are progressing too quickly
B I just can't be that organized all the time
___ other: ______________________________

2.3 When I change from a loosely structured style to a more tightly structured one, it is usually because

A the students are progressing too slowly
A the students are progressing too quickly
A I am having trouble keeping order in the class
A my supervisor has suggested that I change styles
B I have been inspired to change from having talked to or observed another teacher
B I have been inspired to change because of something I have read
A I found I need to work within a less ambiguous framework
___ other: ______________________________

3. Activation:

Please check the item or items which are most descriptive of the way you work. If some are irrelevant, please cross them out. If you check more than one item, please rank order your selections from most often to least often used styles.

3.1 I initiate class activities

10	30	50	80	100% of the time
C	C	B	A	A

If answer falls within middle range of spectrum, please check circumstances under which you initiate activities.

A when I really want to get something done
B when students are sluggish and I want them to get busy
A when students are unruly and I want to settle them down
A when we have a visitor in class and I want to make sure everything runs smoothly
___ other: ______________________________

3.2 Students initiate class activites

10	30	50	80	100% of the time
A	A	B	C	C

If answer falls within middle range of spectrum, please check circumstances under which students initiate activities.

A when I have covered all the necessary work and we have some extra time
A on special occasions like right before vacations
B when they have been especially good and I want to reward them
C when they are really excited about doing something and I want to take advantage of their motivation
A when I am tired or bored
C when I think they have a better idea about what to do than I have
___ other: ______________________________

3.3 I get most of my ideas for activities from:

A teacher's guide
B supervisor
B myself
B other teachers
B book and articles
C the kids
___ other: ______________________

3.4 I usually plan activities that will

A best help me teach the concepts and skills within the subject area
B best meet the needs of the slower students
B best meet the needs of the brighter students
B best meet the needs of the average students
A best help me keep the class orderly and manageable
C be novel for the students and excite their curiosity
___ other: ______________________________________

3.5 When more than one activity is going on in the class at the same time, it is usually because:

A I have more than one grade in the same room
A I want to keep the rest of the kids busy while I'm giving my attention to a small group within the class
B I am trying to tailor activities to meet the needs of students of different achievement levels within the class
C different groups of students like to do different things and I want to take advantage of their motivation
C I simply find it exciting to have a couple of activities going on at one time.
___ other: ____.

3.6 When I teach this course, I usually like to

A work with the whole class at once
B divide the class into several small groups and work with one group at a time
B walk around the class and help each student personally
C get the students to help each other
A sit at my desk while the students are working and have them come to me for help
___ other: ____.

3.7 When I ask the class questions, I usually like to

A designate a student to answer a question before I ask it
C let any student call out the answer
B ask a question and call on whoever raises their hand
A ask a question and have the students respond en masse
A ask a question and designate a student to answer it whether he raises his hand or not
___ other: ____

3.8 Please rank order the three activities you use most often in teaching this course.

A lecturing or talking in front of the class
A question and answer sessions with the whole class
C group discussion with the whole class
B breaking class into several small discussion groups
B breaking class into several small work groups
A have kids do programmed work at desk (workbooks, written exercises, etc
B have kids do non-programmed work at desk (write essay, etc.)
A have kids work at the black board while rest of class watches
A demonstrate experiments for whole group
B supervise student lab work (science lab, shop, home economics)
A have students read aloud to rest of class
B have students read to themselves at their desks
B have contests and play games
___ other: ____________________

3.9 Please read through the following list of classroom materials and media. Rank order the three items you use most.

Elementary School

A text book
A work book
B story books
B magazines and comic books
A movies
B slides
B tape recorder
B records
C toys
B games
C art materials
B paper and pencil
C blocks
B pictures
C animals, plants, and other natural things
B black board
B bulletin board
A television
C musical instruments
B laboratory equipment
___ other: ____________

Secondary School

A text book
A work book
library books
  A reference
  B fiction
  B nonfiction
B pictures
B magazines
B newspapers
B slides
A movies
B tape recorder
B records
C art materials
C musical instruments
C plants, animals, and other natural things
A television
B games
B shop equipment
B laboratory equipment
A business machines
B home economics facilities
B sports equipment
B paper and pencil
___ other: ____________

4. **Evaluation:**

4.1 I am responsible for evaluating student performance

10	30	50	80	100%
C	C	B	A	A

4.2 Please read through the following list of student evaluation factors. Rank order the three items you use most when making up student grades.

___ student performance on periodic tests
    A standardized
    A that I made up
A correctness of answers on programmed work (done in class or as homework)
B content only of non-programmed work
B correctness of form, neatness, etc. of student work
C originality of student work
B oral performance in class
C student effort
A student deportment in class
___ other: ______________________________

Student Teacher Match Chart
(in two parts)

Part I: Instructional Style Congruence

Instructional Style Description	Teacher	Student	Judgment of Match		
Directive	A	A	AA well-matched	AB/BA fairly matched	AC/CA poorly matched
Mixed (Directive and Non-Directive)	B	B	BB well-matched	BC/CB fairly matched	
Non-Directive	C	C	CC well-matched		

1. Under teacher column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Teacher Instructional Strategy Summary.

2. Under student column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Student Preference Inventory.

3. Find column under Judgment of Match which describes Teacher Student match.

4. Refer to Implications of Student-Teacher Match on page 52.

Part Two: Teacher-Student Long-Range Goal Congruence

GOALS	Student Weights	Teacher Weights	Difference in points	
Preparing students to get jobs immediately after high school (Get a job right away)				
Preparing students to enter vocational training programs (Go into a job training program)				
Preparing students to go on to college (Go to college for four years)				
Preparing students for highly professional jobs (Go to college for more than 4 years, etc.)				
Preparing students to live successfully on the reservation (Live near home)				
Preparing students to integrate with Anglo culture (Live far away from home)				

TOTAL DIFFERENCE

Goal Congruence Scale	
Difference	Judgment
0-2 points	- goal congruence excellent
3-4 points	- goal congruence good
5-6 points	- goal congruence fair
6+ points	- goal congruence poor

1. Enter teacher weights for each goal under the Teacher Weight column.
2. Average student weights for each goal and enter average weight under the Student Weight column.
3. Enter the point difference between student and teacher weights for each goal in the third column.
4. Add the point differences and enter total in TOTAL DIFFERENCE Box.
5. Check total difference with goal congruence scale to identify degree of Teacher-Student Goal Congruence.
6. Go on to Implications of Student-Teacher match on following page.

Implications of Student-Teacher Match

Degree of student-teacher match on instructional style preferences should be considered in relation to student performance both in terms of achievement and motivation.

If teacher and students appear to be well-matched and student achievement is satisfactory then there is no problem.

Poor student achievement occurring in the context of a good student-teacher match implies that there may be problems in the way the teacher is formulating his classroom program in terms of curriculum coverage or problems in the way he is implementing his instructional strategy--the way he is actually behaving in class.

The results of the classroom observation and the activities time budget (see Determining Degree of Curriculum Coverage, p. 76) should be checked. If both of these are satisfactory, then the problem probably lies not in the activities the teacher uses in his classroom program but in the content of the lessons.

All teachers need to make trade-offs between meeting student motivational needs and meeting the substantive requirements of the curriculum. The kind of situation being discussed here is one in which student motivational needs are perhaps being met at the cost of these substantive requirements. The evaluator should discuss lesson content with the teacher to determine if he is actually covering substantive material at the rate suggested by the curriculum designer. If he isn't, he should be urged to do so. He probably will be able to do this at little cost in terms of student motivation, as the good student-teacher match indicates that the teacher is already sensitive to student motivational needs. These sensitivities will guide the teacher in reformulating her classroom program.

If the teacher is satisfactorily covering substantive content, then student achievement problems probably lie outside the teacher's control in the curriculum or in another area of the school program.

If student-teacher match is fair or poor and student achievement is good the teacher is apparently making up for disagreements between his and the students' instructional style in some other way.

If student-teacher match is fair or poor and student achievement is unsatisfactory the problem could lie in part in the teacher's sensitivity to student motivational needs, though other model outputs should be checked to identify possible problems in other areas. The evaluator and the teacher should go over the average results of the Student Preference Inventory to see if there are activities, materials or interaction patterns that are pleasing to the students that the teacher could incorporate into his teaching style without sacrificing too much in terms of curriculum coverage.

Problems in student-teacher match could also stem from the teacher having to deal with more than one clearly defined type of student. In that case, the teacher can stick to one strategy that seems to be best for some (and this may be a majority) of the students and either write-off the rest or hope that his strategy-if not the best for all students-is not completely wrong for any of them. Or the teacher can employ a mixed strategy that works for both the majority of the students in his class and one or two deviation groups. In judging match of teacher and student types it will be useful to remember that brighter, more aggressive students can work better within a directive instructional style than slower, more passive students can within a nondirective instructional style.

The other major point of comparison between teacher instructional strategy and student preferences is in the area of long-range goals. If there is significant incongruity between teacher and student long-range goals, which is actually a basic disagreement about why the students are in school and what they are supposed to accomplish there, then there is going to be trouble.

If the teacher wants the students to accomplish more or other than the students want to, there will either be a strengthening of resistance to teacher instruction or an increase of anxiety about not being able to perform up to the teachers expectations. Either one will result in less than optimal student performance.

If the teacher's expectations are lower than the students, it could dampen student motivation and again result in poor student performance. The issues raised through an analysis of goal congruence not only provide useful information for the evaluator but provide the basis for dialogue between evaluator and teacher and, more importantly, between student and teacher.

Other Suggested Uses of the Teacher Instructional Strategy

The teacher instructional strategy is essentially a model of a teacher's instructional style. As such, it can be used in two additional ways: It can be evaluated as a model in terms of internal coherency and consistency; and it can be checked against what the teacher is actually doing in the classroom. Is the model an accurate description of the way the teacher actually behaves in class?

Proceeding from the general description of the teacher's instructional strategy as directive, non-directive, or mixed, the evaluator could also analyze the strategy to see if this definition holds across all parts of the strategy -- goals, direction, structure, activation, and evaluation. The evaluator is essentially asking of the strategy, "Does it hang together? Is it whole?"

If the answer is no, it means there is probably some confusion in the teacher's mind about what he is trying to do. A confused teacher is not an effective one.

For example: If the teacher wants to allow students to determine direction for the class and yet he initiates all classroom activities, the students will never get a chance to exercise the responsibility the teacher expects of them. The teacher will be disappointed; the students will be confused, perhaps even frustrated and resentful.

Or: If the teacher doesn't collect evaluative data consistent with his goals, the students are likely to misperceive his expectations for them and perform along lines very different from what the teacher desires. In his eyes, this would be poor student performance. Another consequence of inconsistency between goals and evaluative factors is that the teacher will never have the information he needs to measure his own effectiveness in terms of progress toward goal achievement. If the teacher can't do this, then he is performing poorly.

The evaluator might also look to see if the strategy fits within minimum stimulation and maximum manageability thresholds. Given consistency, is the strategy so limited and simple-minded in its aims and design that instruction becomes a bore for both the students and the teacher? Or is the teacher trying to do so many things at once through a strategy so complicated that it is impossible for him to manage it, to translate it into action in the classroom.

The teacher instructional strategy also provides one perspective from which to observe and evaluate teacher behavior in the classroom. It is not the only perspective. The evaluator will also want to see how what the teacher does effects what the students do and make judgments on the quality of that interaction. The concern here is whether or not the instructional strategy really models actual instruction. If it doesn't, then there is either confusion in the teacher's mind about what his strategy really is or about how to implement his strategy in the classroom. Either way the result is less than effective teaching. Using the instructional strategy as one way of looking at teacher performance will help confirm or cancel out teacher confusion as a source of ineffective instruction.

All of these considerations could provide the basis for informal talks between the evaluator and the teacher - or for discussion among the instructional staff in faculty meetings.

Classroom Observation Guide

The classroom observation guide is designed to help the evaluator critically observe some aspects of student-teacher interaction in the classroom. The guide covers the major categories of teacher in class behavior, classroom activities, teacher questions, teacher involvement, student response and student attention.

Some sections of the Observation Guide have been adapted from Ben M. Harris and Kenneth E. McIntyre's A Manual for Observation and Analyzing Classroom Instruction.* An observation guide based on the manual developed by Harris and McIntyre was used in research conducted by Abt Associates Inc. for the Bureau of Indian Affairs. The guide included here has been modified and refined on the basis of experience the designers had with the original survey instrument.

The guide is in the form of a checklist describing various teacher and student behaviors. Each behavior has associated with it a percentile ranking. The evaluator should consider each behavior and check in the appropriate box the frequency of occurence of that particular behavior. The estimates are approximate as it is difficult for one evaluator to describe these behaviors more specifically on the basis of one class observation. If the evaluator plans to observe a particular teacher several times over the school year or if observation is carried out by a team of observers rather than an individual, it is suggested that the evaluator alter the percentile ranking scale to achieve a finer description of behavior frequency. This would simply involve adding more percentile categories to the existing scale.

The categories of teacher behavior covered in the guide are: Presenting, Directing, Supporting and Assisting, and Discouraging.

Presenting behavior covers all teacher behavior that presents content to the students. This can happen in teacher lectures or demonstrations or in teacher answers to student questions. This section of the guide will help the evaluator identify how much information the teacher gives the student and the comprehensibility of that information.

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* Extension Teaching and Field Service Bureau, University of Texas, 1964.

Directing behavior refers to directions the teacher gives to the students about how they are supposed to perform. What needs to be distinguished here is whether or not the teacher simply establishs a framework for student problem-solving efforts or solves their problems for them by over-directing their efforts.

Supporting and assisting behavior refers to all behaviors both active and responsive by which teacher supports or assists student problem-solving efforts. Does he take the students seriously by listening to them and answering their questions? Does he express confidence in the students? Does he help students to handle their problems by assuming that they are problems and allowing students second chances and access to assistance? Does he give students feedback on their efforts?

The section on discouraging behavior considers teacher efforts to curtail student behavior, through ignoring students, scolding them, negative criticism, etc. The evaluator should be alert to whether or not the teacher is discouraging student misbehavior in the classroom or student initiative. Does he cut them off every time they raise what seems to be irrelevant issues, or does he listen to them on the assumption that students may perceive relevance where he does not? Is he willing to learn new ideas from the students?

The last section on teacher behavior considers the mix of all types of teacher behaviors. If most of a teacher's behavior falls disproportionately within one category it is a bad sign. A high proportion of directing or discouraging behavior prevents the student from assuming any responsibility for his own learning and from exploring new avenues of thought, or new metaphorical relationships between old ones. A high proportion of presenting behavior could over-saturate the student with information to the extent that he never gets a chance to use the information in problem-solving or is never responsible for finding information on his own. On the other hand, if the teacher gets involved in excessive amounts of supporting or assisting behavior the students may never learn the variety of information and skills they are expected to learn at each grade level.

Observing teacher behavior is a subtle process demanding a high degree of sensitivity on the part of the observer. The teacher is at all times cueing the students not just by what he says but by his demeanor and all of his movements. The observer should be alert to the signals that the teacher is sending out to the students on all levels and through all modes of expression.

Subjective response to the teacher on the part of an outsider (anyone not the teacher) is the crux of the teacher involvement scale. How absorbed in students and subject matter does the teacher seem to be? If he appears distracted to the observer, chances are he appears distracted to the students as well, even though the teacher may not be aware of distraction. Students may respond to his distraction by feeling that if the class or lesson does not seem to be worth the teachers' involvement, it is not worth their's either. So it is important to get some information on how the teacher demonstrates, through her involvement, the value of the content and people he is dealing with.

Student Involvement

Student involvement in the classroom process is approached from three directions: Objective evidence of student attention to teacher, other students and classwork; class activities scaled from those requiring no student participation and those requiring a high degree of student participation; and patterns of student response to teacher questions.

Student Attention

The student attention scale involves taking a quick count of the number of students who appear to be attentive under three different circumstances: When the teacher is talking, when other students are talking, or when the students are working at a task. The evaluator also wants to know the approximate length of the attention span of those students who are attentive. One can usually expect about 10% to 20% of the students in a class to be unattentive under different circumstances (the students who don't listen when the teacher is talking are not necessarily the same students who daydream or talk when they should be doing workbook exercises). One can also expect student attention to drop over time if class activities are not varied or are not stimulating enough to sustain student interest. The student involvement scale helps the evaluator collect data on size of class population who are attentive and the length of their attention span.

Classroom Activities

The classroom activities checklist will help the evaluator estimate how well the teacher plans classroom activities. This is one of the major tests of a good teacher, for in choosing and scheduling classroom activities the teacher is involved in a fairly sophisticated kind of guerilla warfare. He wants to plan activities that will excite student interest and seduce students into being involved. However, student involvement alone is irrelevant unless the activities are loaded with enough instruction in content and skills to adequately meet curriculum requirements. More will be said about curriculum requirements below. For the time being we are concerned with student involvement.

There are two elements to be considered in evaluating activities in terms of student involvement: Variety of activities and degree of student participation required by different types of activities. In the best of all possible student and teacher worlds, it would be possible for a teacher to maintain student involvement using only activities demanding a low level student participation. Lectures, films, demonstration experiments, story reading, all involve a low degree of student participation (compared to students doing problems in their workbooks); but if the teacher varies these activities often enough, there is a good chance of the students not being bored. Activities such as lab work, games, student essay writing demand a higher degree of participation on the part of each student and could maintain student involvement over longer periods of time with less variety. In the real world it is best to look for both variety and high level of participation, though level of participation is less critical when variety is high, and variety is less critical when level of participation is high.

As mentioned above, classroom activities are also important from the curriculum coverage point of view. The major output of the classroom activities checklist will be a measurement of degree of curriculum coverage (see p. 76). The evaluator will estimate approximate percentages of class time devoted to different kinds of activities. These percentages will be compared with standard activities time budgets to estimate how well the teacher is exposing students to content and skill-loaded activities.

Student Response

Two categories of student response are considered: Student response to teacher questions and the questions and comments students raise on their own initiative.

Students generally respond to teacher questions in three different ways: When they are individually called upon by the teacher to answer questions; mass response of the whole class in response to teacher cues; and calling out answers without being personally designated by the teacher.

By designating specific students to answer questions the teacher is placing responsibility on individuals for performing--is challenging them personally. This is a useful way for teachers to get information from individual students to use for evaluation and in planning future lessons. However, it should be remembered that individual questioning and probing is done to the exclusion of the rest of the class. If the teacher spends too much time in obtaining student response by individual designation, she may be unknowingly encouraging students to focus on content and classroom processes only when they are called upon.

The kinds of information students are giving the teacher in mass responses are usually simple facts that the students have memorized. This type of student response is useful for brief class drills to review information taught previously. If most of the student response is given in this manner, it is a sign that the teacher is treating subject matter content superficially.

When students call out answers without being designated by the teacher it is usually a sign of student initiative and involvement in the classroom process. If this happens frequently note if the same students are doing all of the answering. If they are, it could mean that the teacher is more concerned with getting through a lesson than with teaching lesson content to the class.

Pupil Questions

Pupil questions and comments are one of the few easily observable and quantifiable variables for identifying and measuring student initiative.

A question is an aggressive, outreaching act, expectant of response and implying a desire for interaction. Questions are highly significant for these reasons no matter how simple-minded they are. Frequency, regardless of content,is important.

Content of questions is also important. If most of students questions and comments are about how to carry out a task it is usually an indication that teacher directions have been unclear. Questions and comments about the substantive content of the lesson indicate student involvement in the subject matter and the learning process. Questions and comments about topics not related to the subject matter could imply that the students are bored or over-saturated with subject matter and are creating novelty or distraction for themselves; or they could imply that the students are making metaphorial relationships between subject matter and other areas of knowledge or experience. This is what learning is about. Alertness and sensitivity on the part of the observer are important for distinguishing between the two.

Teacher Questions

Five different types of teacher questions are considered. These range generally from superficial to more penetrating questions. Each different level of question involves the student on a deeper cognitive level. Recognition and recall questions require only that the student remember rather simple bits of information or identify the correct answer from alternatives given to him by the teacher or presented to him in the curriculum materials. Demonstration of skill questions require the student to demonstrate his understanding of information by performing skills. Comprehension questions require students to demonstrate their understanding of information and process by explaining them or identifying examples or illustrations of the issues under consideration. Analysis questions usually require the student to abstract information from a problem about which he presumably knows nothing or very little. Opinion or attitude questions require the student to respond with his own feelings or ideas about a problem. All the information comes from the student; he is not remembering, identifying, or analyzing information from any source other than himself.

Teacher's name ______________
Subject being taught ______________
Grade level ______________

CLASSROOM OBSERVATION GUIDE

Teacher Behavior

1. Presenting

	10	30	50	80	100% of the time
1.1 Of the total time students and teacher spend talking in the class the teacher is talking					

	10	30	50	80	100% of the time
1.2 percent of teacher talk related to subject matter or work					
1.3 percent of teacher talk not related to subject matter or work					

Comprehensibility

	10	30	50	80	100% of the time
1.4 teacher presents information in logical step by step sequence					
1.5 teacher uses words that seem to be beyond student comprehension					
1.6 teacher talks too loudly					
1.7 teacher talks too softly					
1.8 teacher talks too fast					
1.9 teacher talks too slowly					
1.10 teacher uses expressions or examples relevant to student age or socio-cultural background					

2. Directing Behavior

Teachers directions are:

	10	30	50	80	100% of the time
2.1 simple directions about what materials to use and guidelines for working					
2.2 detailed step by step directions about how to do work					

3. Supporting and Assisting Behavior

	10	30	50	80	100% of the time
3.1 teacher looks at students when they are talking					
3.2 teacher answers student questions					
3.3 when student doesn't answer question teacher helps him try to answer					

During lesson:

3.4 teacher expresses confidence in student ability to do work					
3.5 teacher encourages students' problem-solving efforts					
3.6 asks for student questions regarding understanding of material or task					
3.7 recognizes student problem-solving efforts					

While students are working, teacher:

	10	30	50	80	100% of the time
3.8 walks around room checking student work and helping students out					
3.9 allows students to come to her desk or to ask questions from their desks about work					
3.10 allows students to help each other					
3.11 does not allow students access to any assistance					

When lesson is completed, teacher:

3.12 gives or promises feedback on work done (i.e. comments on problems they had, says when she'll return work, etc.)					
3.13 rewards student efforts (i.e. displays student work, gives kids extra playtime, etc.)					

4. Discouraging Behavior

When teacher discourages students she is trying to:

	10	30	50	80	100% of the time
4.1 put an end to misbehavior					
4.2 avoid presentation or discussion of non-subject matter topics					
4.3 avoid presentation or discussion of ideas about subject matter topics that differ from her own					

5. Total Teacher Behavior

Please indicate percentage breakdown of total teacher behavior across the following categories:

	10	30	50	80	100% of the time
5.1 presenting					
5.2 directing					
5.3 supporting and assisting					
5.4 discouraging					

6. Teacher Involvement

Please indicate percent of total class time teacher seems:

	10	30	50	80	100% of the time
6.1 involved					
6.2 semi-involved					
6.3 distracted					
6.4 uninvolved					

7. Student Attention

	10	30	50	80	100% of the time	
7.1 When teacher is talking						percent of the students
7.2 are attentive						percent of the time
7.3 When students are talking						percent of the students
7.4 are attentive						percent of the time
7.5 When students are working						percent of the students
7.6 are attentive						percent of the time

8. Teacher Questions

	10	30	50	80	100%	of the time
8.1						of teachers questions require students to recognize or recall correct answer
8.2						of teachers questions require students to demonstrate skills
8.3						of teachers questions require students to demonstrate their comprehension of ideas or concepts
8.4						of teachers questions require students to analyze a problem or idea
8.5						of teachers questions require students to express their own opinions or attitudes

	10	30	50	80	100%	of the time
8.6						of the time teacher designates individual student to answer question
8.7						of the time teacher designates the whole group to answer question
8.8						of the time teacher designates no one to answer question

9. Student Response

	10	30	50	80	100% of the time
Students respond to teacher questions:					
9.1 only when called on					
9.2 without being called on					
9.3 en masse					
9.4 students talk without being asked questions					
Students questions and comments are about:					
9.5 how to carry out task					
9.6 substantive content of lesson					
9.7 topics not related to subject matter					

10. Classroom Activities

Please indicate percent of total class time taken up by the following types of activities:

Actual Activities Time Budget

	10	30	50	80	100% of the time
-teacher lecture or demonstration					
-individual students reading aloud					
-teacher-student question and answer session					
-discussion					
-students reading at desk					
-students doing lab or shop work					
-students working in small groups (games, discussions, etc.)					
-students doing programmed work at desk (i.e. workbook exercises, etc.)					
-students doing nonprogrammed work at desk (i.e. essay writing, etc.)					

Evaluating Teacher Behavior

Data from the classroom observation form should be entered on the Teacher Behavior/Student Response Bar Graph. Accompanying the blank bar graph form is a completed bar graph suggesting standards for evaluation and a set of guidelines for interpreting both the standards and the data collected from classroom observation.

The standards and guidelines are based on the experience of expert teachers and research, including classroom observations carried out in approximately 150 Indian classroom. The evaluator is encouraged to adapt the standards in light of his own experience or knowledge of teaching. In fact, a discussion of evaluative standards for teacher classroom behavior would be an excellent project for the administrative and instructional staffs of any school involved in teacher evaluation.

TEACHER BEHAVIOR/STUDENT RESPONSE BARGRAPH

ITEMS	FREQUENCY 10%	30%	50%	80%	100%
1.1					
1.2					
1.3					
1.4					
1.5					
1.6					
1.7					
1.8					
1.9					
1.10					
2.1					
2.2					
3.1					
3.2					
3.3					
3.4					
3.5					
3.6					
3.7					
3.8					
3.9					
3.10					
3.11					
3.12					
3.13					
4.1					
4.2					
4.3					
5.1					
5.2					
5.3					
5.4					
6.1					
6.2					
6.3					
6.4					
7.1					
7.2					
7.3					
7.4					
7.5					
7.6					
8.1					
8.2					
8.3					
8.4					
8.5					
8.6					
8.7					
8.8					
9.1					
9.2					
9.3					
9.4					
9.5					
9.6					
9.7					
10	Separate output for Section 10 - See Section on Degree of Curriculum Coverage				

SUGGESTED STANDARDS FOR EVALUATING TEACHER BEHAVIOR & STUDENT RESPONSE

FREQUENCY

ITEMS	10%	30%	50%	80%	100%
1.1			▨	▨	
1.2					▨
1.3	▨	▨			
1.4					▨
1.5	▨				
1.6	▨				
1.7	▨				
1.8	▨				
1.9	▨				
1.10			▨	▨	▨
2.1					▨
2.2	▨	▨			
3.1					▨
3.2					▨
3.3				▨	
3.4			▨	▨	▨
3.5			▨	▨	▨
3.6			▨	▨	▨
3.7			▨	▨	▨
3.8	▨	▨	▨		
3.9	▨	▨			
3.10	▨				
3.11	▨	▨			
3.12					▨
3.13				▨	▨
4.1					▨
4.2	▨	▨	▨		
4.3	▨				
5.1			▨		
5.2	▨				
5.3		▨			
5.4	▨				
6.1		▨	▨	▨	▨
6.2	▨	▨			
6.3	▨				
6.4	▨				
7.1					▨
7.2					▨
7.3					▨
7.4					▨
7.5					▨
7.6					▨
8.1	▨	▨			
8.2		▨			
8.3		▨	------	------	--►
8.4		▨	------	------	--►
8.5		▨			
8.6	▨	▨			
8.7	▨	▨			
8.8	▨	▨			
9.1	▨	▨	▨		
9.2			▨	▨	▨
9.3	▨				
9.4			▨	▨	▨
9.5	▨	▨			
9.6			▨	▨	▨
9.7	▨	▨			
10	Separate output for Section 10 - See Section on Degree of Curriculum Coverage				

Guidelines for Interpreting Teacher Behavior and Student Response

1.1 Between 60-80% of the total class talk time is usually taken up by the teacher.* If the teacher is talking more than 80% of the total talk time he probably isn't allowing the students enough time to ask questions, to develop their verbal skills, or to give the teacher the kinds of verbal information he needs for student evaluation. If the teacher is talking less than approximately 30% of the time it could indicate that he is neither giving them enough information nor the verbal assistance they need to learn.

1.2 and 1.3 If less than 80% of the teacher's talk is related to subject matter or class work the teacher is probably not adequately covering the substantive content of the curriculum.

1.4 If the teacher is not presenting substantive content logically and clearly at least 80% of the time it will be difficult for students to understand either him or the content. This will be reflected in poor student achievement.

1.5 If the teacher uses words beyond the comprehension of the students more than 10% of the time the students will not know what the teacher is talking about, no matter how logical his presentation is.

1.6 - 1.9 Voice level and rate of speech are critical factors in teacher comprehensibility. If these factors are unsatisfactory more than 10% of the time the students may become distracted from the content of what the teacher is saying and become more involved in the way the teacher talks.

1.10 Comprehensibility of content will be enhanced if the teacher uses expressions or examples relevant to the age of his students or their socio-cultural background. If a teacher does this less than 30% of the time he may not be giving much attention to making the subject matter meaningful for the students.

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* Flanders, Ned A., Teacher Information, Pupil Attitudes, and Achievement, USHEW OEO-CRP, 397, University of Minnesota, 1960.

2.1 and 2.2 If less than 80% of a teacher's directions to students are any more than general guidelines for carrying out classwork then chances are the teacher is solving the students' problems for them rather than establishing a framework within which they can solve problems themselves.

3.1 Teachers should look at students when they are talking all the time. The 80% standard provides the teacher a certain amount of leeway for routine and unavoidable distractions. If the teacher doesn't look at the students more than 20% of the time it implies that she is neither listening to them nor taking them seriously, two things any teacher should do.

3.2 When a student asks a question it is usually a sign that he is trying to learn or understand something. If the teacher doesn't respond, the student may become frustrated and stop trying to learn.

3.3 This item deals with the value the teacher places on second effort. If a student performs unsatisfactorily the first time through a problem, he should be encouraged to try again. However, a teacher can spend so much time assisting and encouraging individual students that she ignores the rest of the class. The 50-80% thresholds on this item should allow the teacher to encourage individual students without losing the attention or interest of the rest of the class.

3.4 - 3.7 These items all deal with the teacher giving students the moral support they need to learn. This support is as important as the quality or comprehensibility of the information the teacher gives the students. If the teacher gives students support less than 30% of the time, student motivation will probably be low and student achievement will reflect that low motivation.

3.8 When a teacher walks around the room checking on and helping students he is doing a number of things: he is giving individual attention to students; he is aggressively seeking out student problems; and he is making it less threatening for a student to gain access to assistance (a student may feel embarrassed or ashamed to raise his hand to get assistance and publicly admit that he is having difficulties). The teacher should assist students in these ways at least 50% of the total time he is assisting students. The upper threshold on this item is established somewhat arbitrarily. But the evaluator should be aware that if the teacher spends too much time giving attention to individual students he is doing so at some cost to the group as a whole.

3.9 By allowing students to come to his desk for help or to raise questions from their desks, the teacher is allowing students access to assistance but he is doing so more passively than in item 3.8, and he is requiring the students to take more initiative in seeking assistance. This is fine as long as it is not the only access a student has to teacher assistance. 30% seems a reasonable threshold for this item.

3.10 By allowing students to help each other, the teacher is freeing herself to do other work and is allowing a kind of peer teaching to take place. Peer teaching is one effective way for students to learn. The 10% threshold on this item does not mean that if a teacher allows students to help each other more than 10% of the time he is performing poorly. Instead it indicates that a teacher might try this teaching technique at least 10% of the time.

3.11 There are some classroom situations in which a teacher may want to find out what a student can do on his own without any assistance. A 30% threshold has been allowed for this. If a teacher does not allow students access to assistance more than 30% of the time, he may be seriously constraining student efforts to learn.

3.12 Feedback in the form of teacher comments or grades on student work is essential for students to know how they are doing. If the teacher is not providing this feed back at least 80% of the time, students will have little basis for either feeling satisfied with the work they are doing or for trying to improve the quality of their work.

3.13 Teacher rewards for student efforts are one way the teacher encourages students to continue working. Teachers should somehow reward student efforts at least 50% of the time.

4.1 - 4.3 If any more than 10-30% of a teacher's total discouraging behavior is spent discouraging other than student misbehavior it could indicate two things: the teacher may be discouraging student initiative by discouraging the presentation or discussion of ideas about subject matter topics that differ from his own; or the students are presenting a lot of nonsubject matter topics implying the teacher is presenting them with too much information for them to handle or that the lesson is uninteresting to them.

5.1 - 5.4 These four items describe the total mix of teacher behavior. If teacher behavior falls disproportionately within one or two categories, it is a sign that he is not giving the students very much behavioral variety to which they can respond. If most of a teacher's behavior is presenting behavior, it means that the students are being required to function as passive receivers. This does not allow them opportunity to take some responsibility for their own learning or to develop initiative. Or if a teacher's behavior falls disproportionately within the supporting and assisting category, coverage of substantive content is likely to be slow.

6.1 - 6.4 Ideally, the teacher should be totally involved with the lesson and the students 100% of the time. The 10-30% thresholds on the three less than totally involved categories allow a margin for teacher mood, unforeseen distractions, and interruptions, etc.

7.1 - 7.6 If less than 80% of the students are attentive less than 30% of the time, it is a sign that the students may be bored or over-saturated with the content of the lesson or the behavior of whoever is talking. When this happens something (the content, the classroom activities, teaching techniques, or the teacher's or students' behavior) should be changed.

8.1 If more than 30% of a teacher's questions are recognition or recall questions, it may be a sign of superficial teaching and consequently superficial student learning.

8.2 The lower threshold here is more critical than the upper one. Demonstration of skill questions requires students to perform skills related to curriculum content. If a student is not asked to perform in this manner often enough, neither the teacher nor the student will know what the student can actually do. The teacher needs this information for evaluating students and for ongoing formulation of his classroom program. The student needs this information so he knows where he needs to do more work. While the upper threshold is not rigid, a very high percentage of demonstration of skill questions could mean that the teacher is more interested in getting students to perform mechanical operations than being able to analyze or thoroughly understand the content with which they are dealing.

8.3 and 8.4 Again in these items the lower thresholds are the important ones. The upper threshold can be higher, but the evaluator should be aware that it will be difficult for students to handle the performance responsibilities implied in these types of questions without having parallel responsibility for carrying out their own learning. If teacher presenting and directing behavior are high, if the classroom activities are not ones that involve a relatively high level of student participation, the student probably has not been encouraged to assume this responsibility for his own learning.

8.5 Questions of this type really require students to relate subject matter to their own experiences and feelings. This type of question is one way the teacher has of helping make the subject matter meaningful to the student. The lower threshold is the important one though a high level of opinion and attitude questions could mean student attitudes are being dealt with at the cost of covering the substantive content of the curriculum.

8.6 By designating individual students to answer questions, the teacher creates a framework within which he can be sensitive to individual students both for evaluative and motivational purposes. He is also placing a high degree of responsibility for performing on individual students. Some of the implications of this have been discussed under item 8.3. If the teacher spends too much time obtaining student response by individual designation, he may be unknowingly encouraging the rest of the class to focus on content and classroom processes only when they are called upon.

8.7 This kind of questioning, where the teacher poses a question to the whole class then designates individuals to respond, is more inclusive of the group as a whole. However, a high proportion of group designated questions may indicate that the teacher is only seeking answers quickly from a few students who can provide them. If this is so, then the teacher would seem to be more interested in moving smoothly through a pre-planned lesson than in really finding out what all the students in the class know.

8.8 When a teacher designates no one to answer a question, he is creating a great deal of ambiguity about who is to perform. If his students are aggressive they will probably be able to handle this ambiguity and may even find it stimulating. However, if the students are more passive and hesitant they will probably not be able to respond well under this type of questioning. The evaluator should interpret the upper threshold on this type of questioning with these considerations in mind.

9.1 If students respond to the teacher's questions only when called upon, it could mean that student initiative and motivation are low or that the teachers instructional style is so directive that it is constraining initiative and motivation.

9.2 When students respond without being called on it is a sign of high motivation and/or initiative. If this occurs much less than 30% of the time, the evaluator should look for indications in other areas of the teacher's behavior that he is constraining these factors. If he is not, then the teacher should be encouraged to try to find new ways of developing these qualities in his students.

9.3 The kinds of information students are giving the teacher in mass responses are usually simple facts that the students have memorized. This type of student response is useful for brief class drills to review information taught previously. If more than 10% of the student response is given in this manner, it is probably a sign that the teacher is treating subject matter content superficially.

9.4 The interpretation of this item would be the same as 9.2.

9.5 If more than 30% of student questions are about how to carry out a task, it could mean two things: 1) teacher directions were unclear in the first place; 2) students don't ask many questions and when they do, they are about how to carry out tasks -- low level of student questions could imply that students are not involved in the subject matter or classroom process.

9.6 If less than 50% of student questions and comments are about substantive content, it is a sign that the students are probably not too involved in the subject matter and/or the classroom process.

9.7 There are two somewhat opposing implications of a high proportion of student questions about apparently non-subject matter related topics: The students could be bored or over-saturated with subject matter and are creating novelty or distraction for themselves. Or they could be making metaphorical connections between subject matter and other areas of knowledge or experience. The former is a bad sign, the latter a good one. The evaluator should interpret this item with these considerations in mind.

Degree of Curriculum Coverage

Activities on the Classroom Observation Chart are ranged generally from those involving no or a low degree of student participation to those involving a high degree or total student participation.

Adequate curriculum coverage in each major subject area generally requires that students are involved in different kinds of activities from each of these participation levels. Included here is a table of typical time budgets for different kinds of activities in each major curriculum area. These are based on the experience of teachers and education specialists used as resources in the design of this model.

The user may want to develop his own time budget table, using the teachers in his school as consultants.

To evaluate how well the teacher is covering the curriculum, first check student performance (i.e. teacher grades and student achievement scores) in the subject area or areas in which the teacher is working. If performance is good, there is no problem.

If performance is less than satisfactory, the teacher may not be providing adequate student exposure to different types of classroom activities. Compare the teacher's actual activities time budget (Section 10 of the Classroom Observation Guide) with either the typical activities time budget included here or the time budget developed by the user.

If the teacher's actual time budget differs significantly (20 percent or more per category) from the typical standards, it is an indication that the teacher is not formulating his classroom program in such a way that students are adequately involved in activities at the level or levels in which the differences appear.

If the teacher's actual time budget does not differ significantly from the typical time budgets, it is an indication that the problem does not lie in classroom program formulation but rather is in the area of student-teacher match or the teacher's instructional style.

Typical Activities Time Budget (Figures are % of total class time usually spent in each type of activity)	Language Arts	Social Science	Science	Math	
ELEMENTARY					
-teacher lecture or demonstration	10-20%	20-30%	10-20%	20-40%	activities involving no student participation
-individual students reading aloud -teacher/student question and answer session -class discussion	30-50%	30-60%	20-50%	10-30%	activities involving a fair amount of student participation
-students reading at desk -students doing lab or shop work -students working in small groups (games, discussion, etc.)	20-30%	10-30%	10-20%	10-20%	activities involving a high degree of student participation
-students doing programmed work at desk (i.e., work book exercises, etc.) -students doing non-programmed work at desk (i.e., essay writing, etc.)	20-50%	20-40%	20-30%	20-50%	activities involving total student participation
SECONDARY					
-teacher lecture or demonstration	10-30%	10-30%	10-30%	10-30%	activities involving no student participation
-individual students reading aloud -teacher/student question and answer session -class discussion	20-40%	20-50%	20-40%	20-50%	activities involving a fair amount of student participation
-students reading at desk -students doing lab or shop work -students working in small groups (games, discussion, etc.)	20-40%	10-20%	20-40%	10-20%	activities involving a high degree of student participation
-students doing programmed work at desk (i.e., work book exercises, etc.) -students doing non-programmed work at desk (i.e., essaywriting, etc.)	20-50%	20-40%	20-40%	20-50%	activities involving total student participation

Feedback to the Teacher:

The evaluator can either save all feedback to the teacher until the end of the evaluation process or he can hold discussions with the teacher as soon as each step in the evaluation process has been completed. The important point is that the teacher is told something about what has happened to the information collected from him (through the Teacher Instructional Strategy Questionnaire and the classroom observation) soon after it has been collected. This is important psychologically as well as substantively. If the entire evaluation process is carried out within a week or two, the evaluator can wait until everything has been completed until he talks with the teacher. If the evaluation is conducted over a longer period of time, the evaluator should speak with the teacher as soon as each successive phase of the process has been completed.

However it is done, the evaluator, at some point, should go over with the teacher the implications of the findings of student-teacher match, the activities time budget (formulation of classroom program), and the classroom observation. This should be done in face-to-face discussions rather than written memoranda and reports. The level of these discussions should be objective, focusing on objective analysis of classroom program and teacher behavior and what both communicate or don't communicate to the students.

With individual teachers or with the faculty group as a whole, the evaluator can work out new techniques or methods to change teacher or student behavior in the class. The In-Depth Evaluation Model can be used as a recurring instrument of evaluation to identify the impact of these program changes.

Exercising of the Teacher Evaluation Model

Two program simulations have been run through the model. One is the video tape classroom monitoring system (essentially an in-service training technique) and the other a program which pays teachers in relation to the achievement of their students (an incentive technique). Both programs are directed toward the problem of inadequate instruction.

The incentive program is based on student achievement on standardized tests. In a simulation, the teacher responded to it by trying to make subject matter more comprehensible to the students and himself more comprehensible as a transmittor of subject matter. The teacher's objective was to increase student performance, but the model shows that in trying to accomplish this he inhibited student involvement in the classroom process. Unless his students were already fairly well motivated, it was not likely that much increase in student performance would result.

The video tape program regularly presents the teacher with dramatic and objective examples of his own classroom behavior and that of other teachers in school. These include teacher comprehensibility (touched on by the incentive program) as well as a broad range of verbal and nonverbal behaviors. As a result of this perspective, the teacher became more sensitive to his involvement with his students in classroom processes. Student motivation and initiative were high under this program. Some inefficiencies of instruction resulted, but did not detract seriously from student performance.

It would appear that the two programs would complement each other if they were both carried out at the same time. If only one could be selected, the video tape program would seem to be the better choice. The problems generated by it would be more easily corrected than those generated by the incentive program.

For the simulation, an Abt Associates staff member played the role of student. His responses to the student preference inventory were used in both program simulations.

Another staff member played the teacher's role, which was that of a "typical" BIA teacher of high school social studies. The impact of each program on the teacher's ideas about teaching, and on his classroom behavior, are described on the Teacher Instructional Strategy Questionnaire and Classroom Observation Guides for each program simulation.

The completed survey forms and output summaries for each simulation follow.

Output Summary: Video Tape Program

The Student-Teacher Match Chart indicates that student-teacher match, in terms of instructional styles, is good; it falls somewhere between "fairly matched" and "well matched."

The output for degree of curriculum coverage shows that the teacher is fulfilling curriculum expectations in the formulation of his classroom program.

The output for classroom observation shows that the teacher is comprehensible and his mix of behavior and interaction modes good. The only problem indicated by the output is that the teacher may be spending too much time assisting individual students, at some cost to the progress of the class as a whole.

BIA EDUCATION PROGRAM DESCRIPTION

Problem: INADEQUATE TEACHING AND LACK OF CLASSROOM OBSERVATION AND EVALUATION

Program Description: Video tape classroom monitoring system and inter-class and inter-school critiques: An Education Specialist would prepare a program of the best and worst points from each class for presentation and discussion at monthly faculty-administrative meetings. Tape programs would also be exchanged among schools on a rotating basis, with critique forms provided for feedback purposes.

	Pilot Program	Operational Program
What:	Initiate program in 3 schools. 1 set of video tape equipment would be supplied to each school (If there are more than 50 classrooms, 2 sets of equipment would be supplied.)	Same. Expand program to all BIA
Where:	Greasewood Loneman Santa Rosa Boarding	150 BIA schools.
When:	September 1969	September 1970
How:	Video tapes would be made of several class sessions, in each class. An Ed. Spec. would be in charge of editing the films & critique sessions.	Same.
Schedule:		
Costs: Personnel	1 Ed. spec. /school @ $10K = $30k	Same/Ed. Spec. /sch @ 10k = $1,500,000
Facilities:	1 room/school for storage and editing @ 10k ea. = 30k	1 rm/sch. for storage & editing @ 10k ea. = $1,500,000
Equipment:	$5k/school = 15k	5k/school x 150 = $750,000
Other:	Supplies, processing, etc. @ 10k/school = 30k	Supplies, processing, etc. @ 10k/sch. = $1,500,000
TOTAL:	$105k83-211	(cost/pupil: $61) $5,250,000

Student Preference Inventory (Secondary School Students)

Please read through the following lists of classroom activities, materials, and ways of behaving in class. Mark all of the things you like by putting an "X" beside them in the LIKE column. Mark all of the things you don't like by putting an "X" beside them in the DON'T LIKE column. If there are some things you neither like nor dislike, you don't have to mark them at all.

Classroom Activities	LIKE	DON'T LIKE
-listening to the teacher talk	X	
-answering teacher's questions	X	
-reading out loud		X
-reading to myself	X	
-doing problems on the blackboard		X
-doing problems or exercises		X
-writing compositons or papers		X
-doing lab experiments	X	
-watching the teacher do experiments		X
-watching teacher demonstrate problems at the blackboard		X
-taking tests		X
-doing research	X	
-playing games or having contests in class		X
-singing	X	
-drawing or painting	X	
-making things in home economics or shop	X	
-listening to music	X	
-watching movies or television in class	X	
-having discussions in class	X	
-giving reports in front of the class	X	

Materials and Media	LIKE	DON'T LIKE
-textbooks	X	
-workbooks		X
-library books	X	
-pictures	X	
-magazines	X	
-newspapers	X	
-slides		X

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-movies	X	
-tape recorder	X	
-records	X	
-art materials	X	
-musical instruments	X	
-paper and pencil	X	
-plants and animals	X	
-television	X	
-games	X	
-shop equipment	X	
-lab equipment	X	
-business machines	X	
-home economics facilities	X	
-other		
-		
-		

Interaction Preferences

-answering question when teacher calls on me		X
-shouting out the answer without being called on	X	
-saying an answer when other kids say it at the same time		X
-not answering a question at all		
-getting help from the teacher		X
B-raising my hand and asking teacher question	X	
B-raising my hand for teacher to come help me at my desk	X	
A-going to teacher's desk to get help	X	
-getting help from other kids	X	
-working or playing by myself	X	
-working or playing with a few other kids and the teacher	X	
-working or playing with a few other kids and no teacher	X	
-working or playing with one other kid	X	
-working or playing only with the teacher	X	
-helping other kids	X	
-working in front of the class at the blackboard		X
-sitting with other people in a circle or around a table	X	
-sitting at my desk all the time		X

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-working and playing in different parts of the room at different times	X	
-going to different places in the school or outside the school to do different things	X	
-working or playing with the same kids all the time	~~X~~	
-working or playing with different kids different times	X	

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school	2
I want to stay in school until I am old enough to leave even though I may not graduate from high school	0
When I get out of school, I want to:	
get a job right away	1
go into a vocational training program	1
go to college for four years	2
go to college for more than four years to become something like a doctor or a lawyer	2
live near home	2
live far away from home	1

STUDENT PREFERENCE INVENTORY SUMMARY

(Secondary School Level)

Under the Total Number of Items column in each category, enter the number of items of each type which have received plus weights on the master inventory. Multiply this number by the given weight for each type item and enter this figure in the Total Weight column. Do this for each type item in each category.

Add the three figures in the total weight column in each inventory category to get the Average Score for that category. Enter this figure in the space marked Average Score.

In the last section of the Inventory Summary, add the three Average Scores for each area and divide by three (the number of areas) to get a Total Average Score. The Total Average Score will be described A, B, or C indicating student preferences for directive, mixed directive and non-directive, or non-directive instructional styles. The letter describing student instructional preferences should be entered on the Student-Teacher Match Chart on page 50. This will later be compared with the findings of the Teacher Instructional Strategy to determine the degree of student and teacher match.

Materials

	Total # of Items	Weight/ Item	Total Weight
Total average number of A materials	4	x +20	= +80
B	11	x 0	= 0
C	3	x -33	= -99

Average Score -19

Each A material carries a weight of +20
B 0
C -33

If the average materials score falls between ±50, students tend to prefer mixed directional and non-directional activites.

If the average materials score falls above +50, students prefer directional materials.

If the average materials score falls below -50, students prefer non-directional materials.

Activities

	Total # of Items	Weight/ Item	Total Weight
Total average number of A activities	2	x +12.5	= +25
B	7	x 0	= 0
C	3	x -33.3	= -67

Average Score -42

Each A activity carries a weight of +12.5
B 0
C -33

If the average activities score falls between ±50, the students preferences are mixed directional.

If the average activities score falls above +50, the students prefer directive activities.

If the average activities score falls below -50, the students prefer non-directional activities.

Student Preference Inventory Summary (Secondary)

Interaction Preferences

	Total # of Items	Weight/ Item	Total Weight
Total average number of A preferences	1	x +20	= +20
B	6	x 0	= 0
C	5	x -12.5	= -62.5
		Average Score	-42.5

Each A preference carries a weight of +20
B 0
C -12.5

If the average interaction preference score falls between ±50, students tend to prefer mixed directive and non-directive interaction.

If the average interaction preference score falls above +50, students prefer directive interaction.

If the average interaction preference score falls below -50, students prefer non-directive interaction.

TOTAL AVERAGE SCORE:

Materials	-19
Activities	-42
Interaction	-42.5

TOTAL -103.5/3 = -34.5 TOTAL AVERAGE SCORE

If Total Average Score falls between ±50: A
If Total Average Score falls above +50: B
If Total Average Score falls below -50: C

Teacher Instructional Strategy, continued

Long-Range Goals:

Please read over the following list of long-range goals. Rate the goals you think are the highest priority with a 2. Rate the middle priority goals with a 1; and rate the lowest priority goals with a 0.

Preparing students to get jobs immediately after high school	0
Preparing students to enter vocational training programs	2
Preparing a few students to go on to college	2
Preparing students for highly professional jobs (doctors, lawyers, engineers, etc.)	0
Preparing students to live successfully on the reservation	1
Preparing students to integrate with Anglo culture	2

Teacher Questionnaire:

The following questionnaire asks several questions about your style of instruction. The results of this questionnaire will later be compared with the results of the Student Preference Inventory filled out by your students. The comparison will indicate how well your instructional style is matched with the instructional preferences of your students. Allow yourself about an hour to fill out the questionnaire so that you can give thoughtful consideration to your responses.

Instructional Style

Please check the box or blank spaces beside the items which most closely describe your instructional style. If you select more than one item, please rank order your selections. You may choose up to three items.

1. Direction:

	10	30	50	80	100	%of the time
1.1 I provide the direction for this course					X	

If the answer falls within middle range of spectrum, please check circumstances under which you provide direction.

____ When I really want to get something done

____ When students are unmotivated and are progressing too slowly

____ When students are jumping ahead too fast or illogically

____ Only at the beginning of new study units

Other

1.2 Students provide the direction for this course

10	30	50	80	100 % of the time
X				

If answer falls within middle range of spectrum, please check circumstances under which students provide direction

1 When I have covered all the necessary work and we have some extra time

____ When they are motivated and excited by an idea and I want to tap their excitement

____ When I am frustrated with trying to get them to do what I want them to do

____ When I am worried about pushing them through the work too quickly

____ Other

1.3 For direction I rely most heavily on

1 My own ideas about how the course should be taught

2 The text book or curriculum outline

____ The ideas of my supervisor

3 The ideas of other teachers

____ Ideas I have read about in journals and books

____ Other

1.4 10 30 [✓ 50] 80 100 % of the time I use the curriculum outline only as a reference for doing things my own way

1.5 10 [✓ 30] 50 80 100 % of the time I diverge from the text book or curriculum outline.

1.6 [✓ 10] 30 50 80 100 % of the time I criticize myself or the text book in front of the students

1.7 [✓ 10] 30 50 80 100 % of the time I allow students to criticize me or the textbook

1.8 [✓ 10] 30 50 80 100 % of the time I encourage students to criticize me or the text book.

Teacher Instructional Strategy, continued

2. Structure:

Please check the item or items (up to three items) which are most descriptive of the way you work. If some are irrelevant, please cross them out. If you check more than one item, please rank order your selections from most often to least often used style.

2.1 ____ In each class I try to present information and concepts in a clear and logical order

1 I generally try to follow a logical progression of information and concepts for the whole course, but structure my day-to-day teaching more loosely depending on the mood of the students

____ I try to present information and concepts within a subject area to the students as they need them or seem especially receptive to them even though that means I may not know exactly what I'll be teaching from one week to the next

____ I try to present information and concepts across all subject areas to the students as they need them or seem especially receptive to them even though that means we may start discussing social studies in the middle of what started out to be a science lesson

____ Other

2.2 When I change from a tightly structured style to a more loosely structured one, it is usually because:

____ I am bored

____ I am tired of planning everything out very carefully

____ My supervisor has suggested that I change styles

1 I have been inspired to change from having talked to or observed other teachers

____ I have been inspired to change from having read something in a book or journal

2 The students seemed bored

3 The students get very excited about an idea that's not included in the lesson plan and I want to help them understand it while their motivation is high

(2.2 continued)

____ The students are progressing too slowly

____ The students are progressing too quickly

____ I just can't be that organized all the time

____ Other

2.3 When I change from a loosely structured style to a more tightly structured one it is usually because

1 The students are progressing, slowly

____ The students are progressing too quickly

____ I am having trouble keeping the class in order

____ My supervisor has suggested that I change styles

2 I have been inspired to change from having talked to or observed another teacher

____ I have been inspired to change from having read something in a book or journal

____ I found I need to work within a less ambiguous framework

____ Other

3. Activation:

3.1 I initiate class activities ______ % of the time.

10	30	50	80	100
		-		

If answer falls within middle range of spectrum, please check circumstances under which you initiate activities

____ When I really want to get something done

1 When students are sluggish and I want to get them busy

2 When students are unruly, and I want to settly them down

____ When we have a visitor in class, and I want to make sure everything runs smoothly

____ Other

3.2 Students initiate class activities 10 30 50 80 100 % of the time.

10	30	50	80	100
X				

If answer falls within middle range of spectrum, please check circumstances under which students intiate activities.

3 When I have covered all the necessary work, and we have some extra time.

____ On special occasions like right before vacations

1 When they have been especially good and I want to reward them

2 When they are really excited about doing something and I want to take advantage of their motivation

____ When I am tired or bored

____ When I think they have a better idea about what to do than I have

____ Other

3.3 I get most of my ideas for activities from

3 Teachers' guide

____ Supervisor

1 myself

2 Other teachers

____ Books and articles

____ The kids

____ Other

3.4 I usually plan activities that will

1 Best help me teach the concepts and skills within the subject area

2 To meet the needs of the slower students

____ To meet the needs of the brighter students

3 To meet the needs of the average students

____ That will keep the class orderly and manageable

____ Be novel for the students and excite their curiosity

____ Other

3.5 When more than one activity is going on in the class at the same time, it is usually because

____ I have more than one grade in the same room

2 I want to keep the rest of the kids busy while I'm giving my attention to a small group within the class

1 I am trying to tailor activities to meet the needs of students of different achievement levels within the class

____ Different groups of students like to do different things, and I want to take advantage of their motivation

____ I simply find it exciting to have a couple of activities going on at one time

____ Other

3.6 When I teach this course I usually like to

1 Work with the whole class at once

2 Divide the class into several small groups and work with one group at a time

3 Walk around the class and help each student personally

____ Get the students to help each other

____ Sit at my desk while the students are working and have them come to me for help

____ Other

3.7 When I ask the class questions I usually like to

____ designate a student to anwer a question before I ask it

2 Let any student call out the answer

1 Ask a question and call on whoever raises their hand

____ Ask a question and have the students respond en masse

3 Ask a question and designate a student to answer it whether he raises his hand or not

____ Other

3.8 Please rank order the three activities you use most in teaching this course.

____ Lecturing or talking in front of the class

1 Question and answer sessions with the whole class

____ Group discussion with the whole class

____ Breaking class into several small discussion groups

3 Breaking class into several small work groups

2 Have kids do programmed work at desk (workbooks, written exercises, etc.)

____ Have kids do non-programmed work at desks (write essay, etc.)

____ Have kids work at the black board while rest of class watches

____ Demonstrating experiments for whole group

____ Supervising student lab work (science lab, shop, home ec)

____ Having students read aloud to rest of class

____ Having students read to themselves at their desks

____ Having contests and playing games

____ Other

Teacher Instructional Strategy - continued

3.9 Please read through the following list of classroom materials and media. Rank order the three items you use most.

Elementary School

____ text book
____ workbook
____ story books
____ magazines and comic books
____ movies
____ slides
____ tape recorder
____ records
____ toys
____ games
____ art materials
____ paper and pencil
____ blocks
____ pictures
____ animals, plants, other natural things
____ black board
____ bulletin board
____ television
____ musical instruments
____ lab equipment
____ other ____________
____
____

Secondary School

1 text book
____ workbook
library books
- ____ reference
- ____ fiction
- ____ nonfiction

3 pictures
____ magazines
2 newspapers
____ slides
____ movies
____ tape recorder
____ records
____ art materials
____ musical instruments
____ paper and pencil
____ plants, animals, other natural things
____ television
____ games
____ shop equipment
____ lab equipment
____ business machines
____ home ec facilities
____ sports equipment
____ other ____________
____
____

4. Evaluation

4.1 I am responsible for evaluation of student performance

10	30	50	80	100
☐	☐	☐	☒	☐

% of the time.

4.2 Please read through the following list of student evaluation factors. Rank order the three items you use most when you are making up student grades.

student performance on periodic tests
____ standardized
1 that I make up

3 correctness of answers on programmed work (done in class or as homework)

____ content only of non-programmed work

____ correctness of form, neatness, etc., of student work

____ originality of student work

2 oral performance in class

____ student effort

____ student deportment in class

____ Other ____

Teacher Instructional Strategy Summary

TIS Area	Item	Description						
		A	B	C				
Direction	1.1	X						
	1.2	X						
	1.3		X					
	1.4		X					
	1.5	X						
	1.6	X						
	1.7	X						
	1.8	X						
					Subtotal Average (Circle one)	[✓ A]	B	C
Structure	2.1		X					
	2.2			X				
	2.3	X						
					Subtotal Average (Circle one)	A	[✓ B]	C
Activation	3.1	X						
	3.2		X					
	3.3		X					
	3.4		X					
	3.5	X						
	3.6		X					
	3.7		X					
	3.8	X						
	3.9		X					
					Subtotal Average (Circle one)	A	[✓ B]	C
Evaluation	4.1							
	4.2				Subtotal Average (Circle one)	[✓ A]	B	C
					TOTAL RESULTS (Circle one)	[✓ A]	B	C

Directions:

The teacher's responses to the Teacher Instructional Strategy Questionnaire should be recorded on this Summary. Use the attached Master Questionnaire to identify the type of instructional style (A, B, or C) described by the teacher in his response to each item.

Some of the questions on the Teacher Instructional Strategy Questionnaire are two-part questions. If the teacher answers the first part of the question in a certain way, he is referred to the second part of the question. For example, question 1.1: "I provide direction for this course 10%, 30%, 50%, 80%, 100% of the time." Responses at either end of the percentage scale are clearly A or C type responses. A teacher response of 50% would seem to indicate that his direction is mixed. However, before determining this, teacher responses to the second part of the question should be checked. Here the teacher may indicate

Student Teacher Match Chart

(in two parts)

Part I: Instructional Style Congruence

Instructional Style Description	Teacher	Student	Judgment of Match		
Directive	A A+B	A	AA well-matched	[✓ AB/BA fairly matched]	AC/CA poorly matched
Mixed (Directive and Non-Directive)	B	[✓ B]	BB well-matched	BC/CB fairly matched	
Non-Directive	C	C	CC well-matched		

1. Under teacher column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Teacher Instructional Strategy Summary.
2. Under student column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Student Preference Inventory.
3. Find column under Judgment of Match which describes Teacher Student match.
4. Refer to Implications of Student-Teacher Match on page 52.

Part Two: Teacher-Student Long-Range Goal Congruence

GOALS	Student Weights	Teacher Weights	Difference in points	
Preparing students to get jobs immediately after high school (Get a job right away)	1	0	1	
Preparing students to enter vocational training programs (Go into a job training program)	1	2	1	
Preparing students to go on to college (Go to college for four years)	2	2	0	
Preparing students for highly professional jobs (Go to college for more than 4 years, etc.)	2	0	2	
Preparing students to live successfully on the reservation (Live near home)	2	1	1	
Preparing students to integrate with Anglo culture (Live far away from home)	1	2	1	
				TOTAL DIFFERENCE

1. Enter teacher weights for each goal under the Teacher Weight column.

2. Average student weights for each goal and enter average weight under the Student Weight column.

3. Enter the point difference between student and teacher weights for each goal in the third column.

4. Add the point differences and enter total in TOTAL DIFFERENCE Box.

5. Check total difference with goal congruence scale to identify degree of Teacher-Student Goal Congruence.

6. Go on to Implications of Student-Teacher match on following page.

Goal Congruence Scale	
Difference	Judgment
0-2 points	- goal congruence excellent
3-4 points	- goal congruence good
5-6 points	- goal congruence fair
6+ points	- [✓ goal congruence poor]

Teacher's name ____________
Subject being taught Social Studies
Grade level High School

CLASSROOM OBSERVATION GUIDE

Teacher Behavior

1. Presenting

1.1 Of the total time students and teacher spend talking in the class the teacher is talking

10	30	50	80	100% of the time
		X		

	10	30	50	80	100% of the tim
1.2 percent of teacher talk related to subject matter or work				X	
1.3 percent of teacher talk not related to subject matter or work	X				

Comprehensibility

	10	30	50	80	100% of the time
1.4 teacher presents information in logical step by step sequence				X	
1.5 teacher uses words that seem to be beyond student comprehension	X				
1.6 teacher talks too loudly	X				
1.7 teacher talks too softly	X				
1.8 teacher talks too fast	X				
1.9 teacher talks too slowly	X				
1.10 teacher uses expressions or examples relevant to student age or socio-cultural background		X			

2. Directing Behavior

Teachers directions are:

	10	30	50	80	100% of the time
2.1 simple directions about what materials to use and guidelines for working				X	
2.2 detailed step by step directions about how to do work	X				

3. Supporting and Assisting Behavior

	10	30	50	80	100% of the tim
3.1 teacher looks at students when they are talking					X
3.2 teacher answers student questions				X	
3.3 when student doesn't answer question teacher helps him try to answer			X		

During lesson:

3.4 teacher expresses confidence in student ability to do work				X	
3.5 teacher encourages students' problem-solving efforts				X	
3.6 asks for student questions regarding understanding of material or task				X	
3.7 recognizes student problem-solving efforts				X	

While students are working, teacher:

		10	30	50	80	100% of the tim
3.8	walks around room checking student work and helping students out				X	
3.9	allows students to come to her desk or to ask questions from their desks about work					
3.10	allows students to help each other	X				
3.11	does not allow students access to any assistance	X				

When lesson is completed, teacher:

3.12	gives or promises feedback on work done (i.e. comments on problems they had, says when she'll return work, etc.)				X	
3.13	rewards student efforts (i.e. displays student work, gives kids extra play-time, etc.)				X	

4. Discouraging Behavior

When teacher discourages students she is trying to:

		10	30	50	80	100% of the tim
4.1	put an end to misbehavior				X	
4.2	avoid presentation or discussion of non-subject matter topics	X				
4.3	avoid presentation or discussion of ideas about subject matter topics that differ from her own	X				

5. Total Teacher Behavior

Please indicate percentage breakdown of total teacher behavior across the following categories:

		10	30	50	80	100% of the time
5.1	presenting			X		
5.2	directing	X				
5.3	supporting and assisting		X			
5.4	discouraging	X				

6. Teacher Involvement

Please indicate percent of total class time teacher seems:

		10	30	50	80	100% of the time
6.1	involved				X	
6.2	semi-involved	X				
6.3	distracted	X				
6.4	uninvolved	X				

7. Student Attention

		10	30	50	80	100%	of the time
7.1	When teacher is talking				X		percent of the students
7.2	are attentive				X		percent of the time
7.3	When students are talking				X		percent of the students
7.4	are attentive				X		percent of the time
7.5	When students are working				X		percent of the students
7.6	are attentive				X		percent of the time

8. Teacher Questions

	10	30	50	80	100%	of the time
8.1		X				of teachers questions require students to recognize or recall correct answer
8.2	X					of teachers questions require students to demonstrate skills
8.3		X				of teachers questions require students to demonstrate their comprehension of ideas or concepts
8.4	X					of teachers questions require students to analyze a problem or idea
8.5	X					of teachers questions require students to express their own opinions or attitudes

	10	30	50	80	100%	of the time
8.6		X				of the time teacher designates individual student to answer question
8.7		X				of the time teacher designates the whole group to answer question
8.8		X				of the time teacher designates no one to answer question

9. Student Response

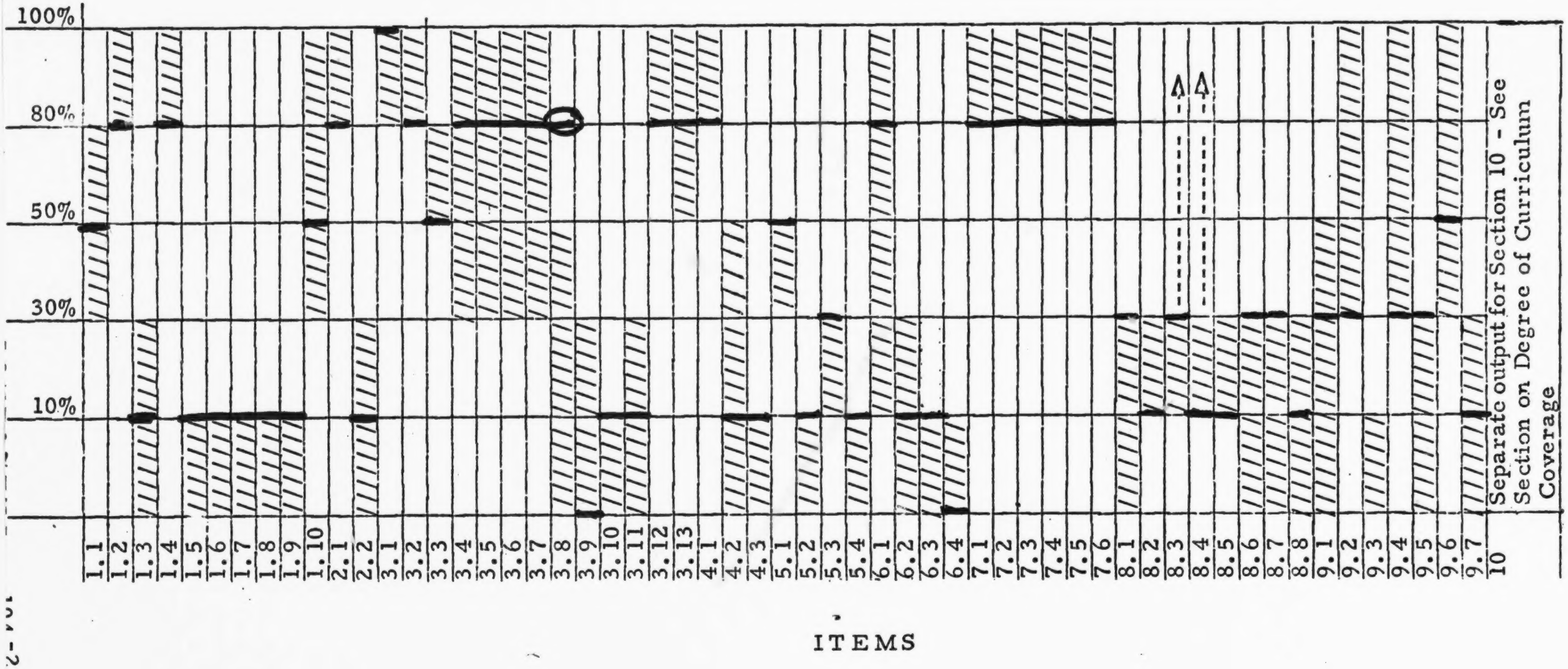
		10	30	50	80	100% of the time
Students respond to teacher questions:						
9.1	only when called on		X			
9.2	without being called on		X			
9.3	en masse	X				
9.4	students talk without being asked questions		X			
Students questions and comments are about:						
9.5	how to carry out task		X			
9.6	substantive content of lesson			X		
9.7	topics not related to subject matter	X				

10. Classroom Activities

Please indicate percent of total class time taken up by the following types of activities:

	Actual Activities Time Budget				
	10	30	50	80	100% of the time
-teacher lecture or demonstration	X				
-individual students reading aloud					
-teacher-student question and answer session		X			
-discussion	X				
-students reading at desk					
-students doing lab or shop work					
-students working in small groups (games, discussions, etc.)		X			
-students doing programmed work at desk (i.e. workbook exercises, etc.)	X				
-students doing nonprogrammed work at desk (i.e. essay writing, etc.)	X				

SUGGESTED STANDARDS FOR EVALUATING TEACHER BEHAVIOR & STUDENT RESPONSE



Output Summary: Teacher Incentive Program

The Student-Teacher Match Chart indicates that the teacher is using a highly directive instructional strategy with students whose preferences tend to be mixed directive and non-directive. It would seem that the teacher was trying to enhance adequacy of curriculum coverage by trading-off student motivational factors.

The output for degree of curriculum coverage shows that he still is not covering the curriculum adequately: he is at the upper edge of typical thresholds on activities requiring no student participation; he has no activities involving a high degree of student participation; he has only a minimum amount of activities involving total student participation.

Output for the classroom observation indicates that the teacher is over directing students in class. He is inclined to solve the students' problems for them instead of allowing them to solve problems themselves. The responsibility he is placing on students for performing is unreasonable, given the low degree of responsibility he is allowing students to assume for carrying out their own learning. The output also indicates that student motivation and initiative are quite low.

BIA EDUCATION PROGRAM DESCRIPTION

Problem: INADEQUATE INSTRUCTION

Program Description: PAY TEACHERS IN RELATION TO STUDENT ACHIEVEMENT: In a 9-month school year, an academic advancement of 9 months is expected. For each extra month, which a child advances, the teacher would receive $20. This could only apply to subjects in which standardized tests are given. Other teachers could receive a proportional reward on the assumption that, if they do their job well, academic achievement in all subjects is improved.

	Pilot Program	Operational Program
What:	Pay teachers on the basis of academic achievement change in aggregate advancement for whole class; each achvmt unit (by mos.) in excess of expected stud. advance earns bonus of $20	All schools
Where:	Cherokee Central	All schools
When:	Fall 1969	Fall, 1970, after successful pilot
How:	Test in Sept. and again in May; academic advancement determines the basis for the bonus.	Same
Schedule:	Sept. 1969 Test I May, 1970 Test II Aug. 1970 pay bonus	
Costs: Personnel	1 ed. spec. $10k	50 ed. spec. @ 10k ea. = 500k
Facilities:	Existing	Existing
Equipment:	None	None
Other:	2 tests @ 10,000 bonuses for 50 tchrs, @ $200 ave. = 10,000	tests @ 5k x 250 = 1,250,000 (testing once/yr) Bonus for 2500 teachers @200 a 500,000
TOTAL:	$30k	(cost/pupil: $10) 2.250.000

Student Preference Inventory (Secondary School Students)

Please read through the following lists of classroom activities, materials, and ways of behaving in class. Mark all of the things you like by putting an "X" beside them in the LIKE column. Mark all of the things you don't like by putting an "X" beside them in the DON'T LIKE column. If there are some things you neither like nor dislike, you don't have to mark them at all.

Classroom Activities	LIKE	DON'T LIKE
-listening to the teacher talk	X	
-answering teacher's questions	X	
-reading out loud		X
-reading to myself	X	
-doing problems on the blackboard		X
-doing problems or exercises		X
-writing compositons or papers		X
-doing lab experiments	X	
-watching the teacher do experiments		X
-watching teacher demonstrate problems at the blackboard		X
-taking tests		X
-doing research	X	
-playing games or having contests in class		X
-singing	X	
-drawing or painting	X	
-making things in home economics or shop	X	
-listening to music	X	
-watching movies or television in class	X	
-having discussions in class	X	
-giving reports in front of the class	X	

Materials and Media	LIKE	DON'T LIKE
-textbooks	X	
-workbooks		X
-library books	X	
-pictures	X	
-magazines	X	
-newspapers	X	
-slides		X

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-movies	X	
-tape recorder	X	
-records	X	
-art materials	X	
-musical instruments	X	
-paper and pencil	X	
-plants and animals	X	
-television	X	
-games	X	
-shop equipment	X	
-lab equipment	X	
-business machines	X	
-home economics facilities	X	
-other		
-		
-		

Interaction Preferences

-answering question when teacher calls on me		X
-shouting out the answer without being called on	X	
-saying an answer when other kids say it at the same time		X
-not answering a question at all		
-getting help from the teacher		X
B-raising my hand and asking teacher question	X	
B-raising my hand for teacher to come help me at my desk	X	
A-going to teacher's desk to get help	X	
-getting help from other kids	X	
-working or playing by myself	X	
-working or playing with a few other kids and the teacher	X	
-working or playing with a few other kids and no teacher	X	
-working or playing with one other kid	X	
-working or playing only with the teacher	X	
-helping other kids	X	
-working in front of the class at the blackboard		X
-sitting with other people in a circle or around a table	X	
-sitting at my desk all the time		X

Student Preference Inventory (cont.)

	LIKE	DON'T LIKE
-working and playing in different parts of the room at different times	X	
-going to different places in the school or outside the school to do different things	X	
-working or playing with the same kids all the time	X	
-working or playing with different kids different times	X	

Student Goals

Here is a list of some goals you may have for the future. Please read over the list and decide which goals are most important and which are not so important. If you think a goal is very important, mark a 2 in the blank space next to the goal. If you think a goal is not very important, mark it 0. If you think a goal is sort of important, but not one of the most important ones, give it a score of 1.

I want to stay in school until I graduate from high school	2
I want to stay in school until I am old enough to leave even though I may not graduate from high school	0

When I get out of school, I want to:

get a job right away	1
go into a vocational training program	1
go to college for four years	2
go to college for more than four years to become something like a doctor or a lawyer	2
live near home	2
live far away from home	1

STUDENT PREFERENCE INVENTORY SUMMARY

(Secondary School Level)

Under the Total Number of Items column in each category, enter the number of items of each type which have received plus weights on the master inventory. Multiply this number by the given weight for each type item and enter this figure in the Total Weight column. Do this for each type item in each category.

Add the three figures in the total weight column in each inventory category to get the Average Score for that category. Enter this figure in the space marked Average Score.

In the last section of the Inventory Summary, add the three Average Scores for each area and divide by three (the number of areas) to get a Total Average Score. The Total Average Score will be described A, B, or C indicating student preferences for directive, mixed directive and non-directive, or non-directive instructional styles. The letter describing student instructional preferences should be entered on the Student-Teacher Match Chart on page 50. This will later be compared with the findings of the Teacher Instructional Strategy to determine the degree of student and teacher match.

Materials

	Total # of Items	Weight Item		Total Weight
Total average number of A materials	4	x +20	=	+80
B	11	x 0	=	0
C	3	x -33	=	-99

Average Score -19

Each A material carries a weight of +20
B 0
C -33

If the average materials score falls between ±50, students tend to prefer mixed directional and non-directional activites.

If the average materials score falls above +50, students prefer directional materials.

If the average materials score falls below -50, students prefer non-directional materials.

Activities

	Total # of Items	Weight/ Item		Total Weight
Total average number of A activities	2	x +12.5	=	+25
B	7	x 0	=	0
C	3	x -33.3	=	-67

Average Score -42

Each A activity carries a weight of +12.5
B 0
C -33

If the average activities score falls between ±50, the students preferences are mixed directional.

If the average activities score falls above +50, the students prefer directive activities.

If the average activities score falls below -50, the students prefer non-directional activities.

Student Preference Inventory Summary (Secondary)

Interaction Preferences

2

	Total # of Items	Weight/Item	Total Weight
Total average number of A preferences	1	x +20	= +20
B	6	x 0	= 0
C	5	x -12.5	= -62.5
Average Score			-42.5

Each A preference carries a weight of +20
B 0
C -12.5

If the average interaction preference score falls between ±50, students tend to prefer mixed directive and non-directive interaction.

If the average interaction preference score falls above +50, students prefer directive interaction.

If the average interaction preference score falls below -50, students prefer non-directive interaction.

TOTAL AVERAGE SCORE:

Materials -19
Activities -42
Interaction -42.5
TOTAL -103.5/3 = -34.5 TOTAL AVERAGE SCORE

If Total Average Score falls between ±50: A
If Total Average Score falls above +50: B
If Total Average Score falls below -50: C

Long-Range Goals:

Please read over the following list of long-range goals. Rate the goals you think are the highest priority with a 2. Rate the middle priority goals with a 1; and rate the lowest priority goals with a 0.

Preparing students to get jobs immediately after high school	0
Preparing students to enter vocational training programs	0
Preparing a few students to go on to college	2
Preparing students for highly professional jobs (doctors, lawyers, engineers, etc.)	1
Preparing students to live successfully on the reservation	0
Preparing students to integrate with Anglo culture	2

Teacher Questionnaire:

The following questionnaire asks several questions about your style of instruction. The results of this questionnaire will later be compared with the results of the Student Preference Inventory filled out by your students. The comparison will indicate how well your instructional style is matched with the instructional preferences of your students. Allow yourself about an hour to fill out the questionnaire so that you can give thoughtful consideration to your responses.

Instructional Style

Please check the box or blank spaces beside the items which most closely describe your instructional style. If you select more than one item, please rank order your selections. You may choose up to three items.

1. Direction:

1.1 I provide the direction for this course

10	30	50	80	100	%of the time
			X		

If the answer falls within middle range of spectrum, please check circumstances under which you provide direction.

_____ When I really want to get something done

_____ When students are unmotivated and are progressing too slowly

_____ When students are jumping ahead too fast or illogically

_____ Only at the beginning of new study units

Other

Teacher Instructional Strategy, continued

1.2 Students provide the direction for this course

10	30	50	80	100 % of the time
X				

If answer falls within middle range of spectrum, please check circumstances under which students provide direction

X When I have covered all the necessary work and we have some extra time

___ When they are motivated and excited by an idea and I want to tap their excitement

___ When I am frustrated with trying to get them to do what I want them to do

___ When I am worried about pushing them through the work too quickly

___ Other

1.3 For direction I rely most heavily on

2 My own ideas about how the course should be taught

1 The text book or curriculum outline

___ The ideas of my supervisor

___ The ideas of other teachers

___ Ideas I have read about in journals and books

___ Other

1.4 10 [✓ 30] 50 80 100 % of the time I use the curriculum outline only as a reference for doing things my own way

1.5 10 [✓ 30] 50 80 100 % of the time I diverge from the text book or curriculum outline.

1.6 [✓ 10] 30 50 80 100 % of the time I criticize myself or the text book in front of the students

1.7 [✓ 10] 30 50 80 100 % of the time I allow students to criticize me or the textbook

1.8 [✓ 10] 30 50 80 100 % of the time I encourage students to criticize me or the text book.

Teacher Instructional Strategy, continued

2. Structure:

Please check the item or items (up to three items) which are most descriptive of the way you work. If some are irrelevant, please cross them out. If you check more than one item, please rank order your selections from most often to least often used style.

2.1 ___1___ In each class I try to present information and concepts in a clear and logical order

_____ I generally try to follow a logical progression of information and concepts for the whole course, but structure my day-to-day teaching more loosely depending on the mood of the students

_____ I try to present information and concepts within a subject area to the students as they need them or seem especially receptive to them even though that means I may not know exactly what I'll be teaching from one week to the next

_____ I try to present information and concepts across all subject areas to the students as they need them or seem especially receptive to them even though that means we may start discussing social studies in the middle of what started out to be a science lesson

_____ Other

2.2 When I change from a tightly structured style to a more loosely structured one, it is usually because:

_____ I am bored

_____ I am tired of planning everything out very carefully

_____ My supervisor has suggested that I change styles

___2___ I have been inspired to change from having talked to or observed other teachers

___3___ I have been inspired to change from having read something in a book or journal

_____ The students seemed bored

_____ The students get very excited about an idea that's not included in the lesson plan and I want to help them understand it while their motivation is high

(2.2 continued)

1 The students are progressing too slowly

____ The students are progressing too quickly

____ I just can't be that organized all the time

____ Other

2.3 When I change from a loosely structured style to a more tightly structured one it is usually because

1 The students are progressing slowly

____ The students are progressing too quickly

____ I am having trouble keeping the class in order

____ My supervisor has suggested that I change styles

3 I have been inspired to change from having talked to or observed another teacher

____ I have been inspired to change from having read something in a book or journal

2 I found I need to work within a less ambiguous framework

____ Other

3. Activation:

3.1 I initiate class activities % of the time.

10	30	50	80	100
				X

If answer falls within middle range of spectrum, please check circumstances under which you initiate activities

____ When I really want to get something done

____ When students are sluggish and I want to get them busy

____ When students are unruly, and I want to settly them down

____ When we have a visitor in class, and I want to make sure everything runs smoothly

____ Other

Teacher Instructional Strategy. continued

3.2 Students initiate class activities

10	30	50	80	100
X				

% of the time.

If answer falls within middle range of spectrum, please check circumstances under which students intiate activities.

____ When I have covered all the necessary work, and we have some extra time.

____ On special occasions like right before vacations

____ When they have been especially good and I want to reward them

____ When they are really excited about doing something and I want to take advantage of their motivation

____ When I am tired or bored

____ When I think they have a better idea about what to do than I have

____ Other

3.3 I get most of my ideas for activities from

__1__ Teachers' guide

____ Supervisor

__2__ myself

__3__ Other teachers

____ Books and articles

____ The kids

____ Other

3.4 I usually plan activities that will

__1__ Best help me teach the concepts and skills within the subject area

____ To meet the needs of the slower students

__2__ To meet the needs of the brighter students

__3__ To meet the needs of the average students

____ That will keep the class orderly and manageable

____ Be novel for the students and excite their curiosity

____ Other

3.5 When more than one activity is going on in the class at the same time, it is usually because

____ I have more than one grade in the same room

1 I want to keep the rest of the kids busy while I'm giving my attention to a small group within the class

____ I am trying to tailor activities to meet the needs of students of different achievement levels within the class

____ Different groups of students like to do different things, and I want to take advantage of their motivation

____ I simply find it exciting to have a couple of activities going on at one time

____ Other

3.6 When I teach this course I usually like to

1 Work with the whole class at once

2 Divide the class into several small groups and work with one group at a time

3 Walk around the class and help each student personally

____ Get the students to help each other

____ Sit at my desk while the students are working and have them come to me for help

____ Other

3.7 When I ask the class questions I usually like to

2 designate a student to anwer a question before I ask it

____ Let any student call out the answer

____ Ask a question and call on whoever raises their hand

____ Ask a question and have the students respond en masse

1 Ask a question and designate a student to answer it whether he raises his hand or not

____ Other

3.8 Please rank order the three activities you use most in teaching this course.

3 Lecturing or talking in front of the class

1 Question and answer sessions with the whole class

____ Group discussion with the whole class

____ Breaking class into several small discussion groups

____ Breaking class into several small work groups

2 Have kids do programmed work at desk (workbooks, written exercises, etc.)

____ Have kids do non-programmed work at desks (write essay, etc.)

____ Have kids work at the black board while rest of class watches

____ Demonstrating experiments for whole group

____ Supervising student lab work (science lab, shop, home ec)

____ Having students read aloud to rest of class

____ Having students read to themselves at their desks

____ Having contests and playing games

____ Other

3.9 Please read through the following list of classroom materials and media. Rank order the three items you use most.

Elementary School

____ text book
____ workbook
____ story books
____ magazines and comic books
____ movies
____ slides
____ tape recorder
____ records
____ toys
____ games
____ art materials
____ paper and pencil
____ blocks
____ pictures
____ animals, plants, other natural things
____ black board
____ bulletin board
____ television
____ musical instruments
____ lab equipment
____ other ____________
____
____

Secondary School

1 text book
____ workbook
library books
____ reference
____ fiction
____ nonfiction
____ pictures
____ magazines
____ newspapers
____ slides
3 movies
____ tape recorder
____ records
____ art materials
____ musical instruments
2 paper and pencil
____ plants, animals, other natural things
____ television
____ games
____ shop equipment
____ lab equipment
____ business machines
____ home ec facilities
____ sports equipment
____ other ____________
____
____

4. Evaluation

4.1 I am responsible for evaluation of student performance

10	30	50	80	100 % of the time.
☐	☐	☐	☐	☒

4.2 Please read through the following list of student evaluation factors. Rank order the three items you use most when you are making up student grades.

student performance on periodic tests
1 standardized
____ that I make up

2 correctness of answers on programmed work (done in class or as homework)

____ content only of non-programmed work

____ correctness of form, neatness, etc., of student work

____ originality of student work

3 oral performance in class

____ student effort

____ student deportment in class

____ Other ______________________________

Teacher Instructional Strategy Summary

TIS Area	Item	Description						
		A	B	C				
Direction	1.1	X						
	1.2	X						
	1.3	X						
	1.4	X						
	1.5	X						
	1.6	X						
	1.7	X						
	1.8	X			Subtotal Average (Circle one)	[✓ A]	B	C
Structure	2.1	X						
	2.2		X					
	2.3	X			Subtotal Average (Circle one)	[✓ A]	B	C
Activation	3.1	X						
	3.2	X						
	3.3		X					
	3.4		X					
	3.5	X						
	3.6		X					
	3.7	X						
	3.8	X						
	3.9	X			Subtotal Average (Circle one)	[✓ A]	B	C
Evaluation	4.1	X						
	4.2	X			Subtotal Average (Circle one)	[✓ A]	B	C
					TOTAL RESULTS (Circle one)	[✓ A]	B	C

Directions:

The teacher's responses to the Teacher Instructional Strategy Questionnaire should be recorded on this Summary. Use the attached Master Questionnaire to identify the type of instructional style (A, B, or C) described by the teacher in his response to each item.

Some of the questions on the Teacher Instructional Strategy Questionnaire are two-part questions. If the teacher answers the first part of the question in a certain way, he is referred to the second part of the question. For example, question 1.1: "I provide direction for this course 10%, 30%, 50%, 80%, 100% of the time." Responses at either end of the percentage scale are clearly A or C type responses. A teacher response of 50% would seem to indicate that his direction is mixed. However, before determining this, teacher responses to the second part of the question should be checked. Here the teacher may indicate

Student Teacher Match Chart
(in two parts)

Part I: Instructional Style Congruence

Instructional Style Description	Teacher	Student	Judgment of Match		
Directive	[✓ A]	A	AA well-matched	[✓ AB/BA fairly matched]	AC/CA poorly matched
Mixed (Directive and Non-Directive)	B	[✓ B]	BB well-matched	BC/CB fairly matched	
Non-Directive	C	C	CC well-matched		

1. Under teacher column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Teacher Instructional Strategy Summary.

2. Under student column, circle letter in Box A, B or C which is the same as letter of TOTAL RESULT: Student Preference Inventory.

3. Find column under Judgment of Match which describes Teacher Student match.

4. Refer to Implications of Student-Teacher Match on page 52.

Part Two: Teacher-Student Long-Range Goal Congruence

GOALS	Student Weights	Teacher Weights	Difference in points	
Preparing students to get jobs immediately after high school (Get a job right away)	1	0	1	
Preparing students to enter vocational training programs (Go into a job training program)	1	0	1	
Preparing students to go on to college (Go to college for four years)	2	2	0	
Preparing students for highly professional jobs (Go to college for more than 4 years, etc.)	2	1	1	
Preparing students to live successfully on the reservation (Live near home)	2	0	2	
Preparing students to integrate with Anglo culture (Live far away from home)	1	2	1	

6 TOTAL DIFFERENCE

Goal Congruence Scale	
Difference	Judgment
0-2 points	- goal congruence excellent
3-4 points	- goal congruence good
5-6 points	- goal congruence fair
6+ points	[✓ - goal congruence poor]

1. Enter teacher weights for each goal under the Teacher Weight column.

2. Average student weights for each goal and enter average weight under the Student Weight column.

3. Enter the point difference between student and teacher weights for each goal in the third column.

4. Add the point differences and enter total in TOTAL DIFFERENCE Box.

5. Check total difference with goal congruence scale to identify degree of Teacher-Student Goal Congruence.

Teacher's name ____________
Subject being taught Social Studies
Grade level High School

CLASSROOM OBSERVATION GUIDE

Teacher Behavior

1. Presenting

1.1 Of the total time students and teacher spend talking in the class the teacher is talking

10	30	50	80	100% of the time
			X	

		10	30	50	80	100% of the time
1.2	percent of teacher talk related to subject matter or work					X
1.3	percent of teacher talk not related to subject matter or work	X				

Comprehensibility

		10	30	50	80	100% of the time
1.4	teacher presents information in logical step by step sequence					X
1.5	teacher uses words that seem to be beyond student comprehension	X				
1.6	teacher talks too loudly	X				
1.7	teacher talks too softly	X				
1.8	teacher talks too fast	X				
1.9	teacher talks too slowly	X				
1.10	teacher uses expressions or examples relevant to student age or socio-cultural background				X	

2. Directing Behavior

Teachers directions are:

		10	30	50	80	100% of the time
2.1	simple directions about what materials to use and guidelines for working			X		
2.2	detailed step by step directions about how to do work			X		

3. Supporting and Assisting Behavior

		10	30	50	80	100% of the time
3.1	teacher looks at students when they are talking				X	
3.2	teacher answers student questions			X		
3.3	when student doesn't answer question teacher helps him try to answer		X			

During lesson:

3.4	teacher expresses confidence in student ability to do work			X		
3.5	teacher encourages students' problem-solving efforts				X	
3.6	asks for student questions regarding understanding of material or task				X	
3.7	recognizes student problem-solving efforts			X		

While students are working, teacher:

	10	30	50	80	100% of the tim
3.8 walks around room checking student work and helping students out			X		
3.9 allows students to come to her desk or to ask questions from their desks about work		X			
3.10 allows students to help each other	X				
3.11 does not allow students access to any assistance	X				

When lesson is completed, teacher:

3.12 gives or promises feedback on work done (i.e. comments on problems they had, says when she'll return work, etc.)				X	
3.13 rewards student efforts (i.e. displays student work, gives kids extra playtime, etc.)			X		

4. Discouraging Behavior

When teacher discourages students she is trying to:

	10	30	50	80	100% of the tim
4.1 put an end to misbehavior	X				
4.2 avoid presentation or discussion of non-subject matter topics				X	
4.3 avoid presentation or discussion of ideas about subject matter topics that differ from her own	X				

5. Total Teacher Behavior

Please indicate percentage breakdown of total teacher behavior across the following categories:

	10	30	50	80	100% of the time
5.1 presenting		X			
5.2 directing		X			
5.3 supporting and assisting		X			
5.4 discouraging	X				

6. Teacher Involvement

Please indicate percent of total class time teacher seems:

	10	30	50	80	100% of the time
6.1 involved				X	
6.2 semi-involved	X				
6.3 distracted	X				
6.4 uninvolved	X				

7. Student Attention

	10	30	50	80	100% of the time	
7.1 When teacher is talking				X		percent of the students
7.2 are attentive				X		percent of the time
7.3 When students are talking				X		percent of the students
7.4 are attentive				X		percent of the time
7.5 When students are working				X		percent of the students
7.6 are attentive				X		percent of the time

8. Teacher Questions

	10	30	50	80	100% of the time
8.1			X		
					of teachers questions require students to recognize or recall correct answer
8.2	X				of teachers questions require students to demonstrate skills
8.3		X			of teachers questions require students to demonstrate their comprehension of ideas or concepts
8.4	X				of teachers questions require students to analyze a problem or idea
8.5	X				of teachers questions require students to express their own opinions or attitudes

	10	30	50	80	100% of the time
8.6				X	of the time teacher designates individual student to answer question
8.7	X				of the time teacher designates the whole group to answer question
8.8	X				of the time teacher designates no one to answer question

9. Student Response

	10	30	50	80	100% of the time
Students respond to teacher questions:					
9.1 only when called on				X	
9.2 without being called on	X				
9.3 en masse	X				
9.4 students talk without being asked questions	X				
Students questions and comments are about:					
9.5 how to carry out task			X		
9.6 substantive content of lesson		X			
9.7 topics not related to subject matter	X				

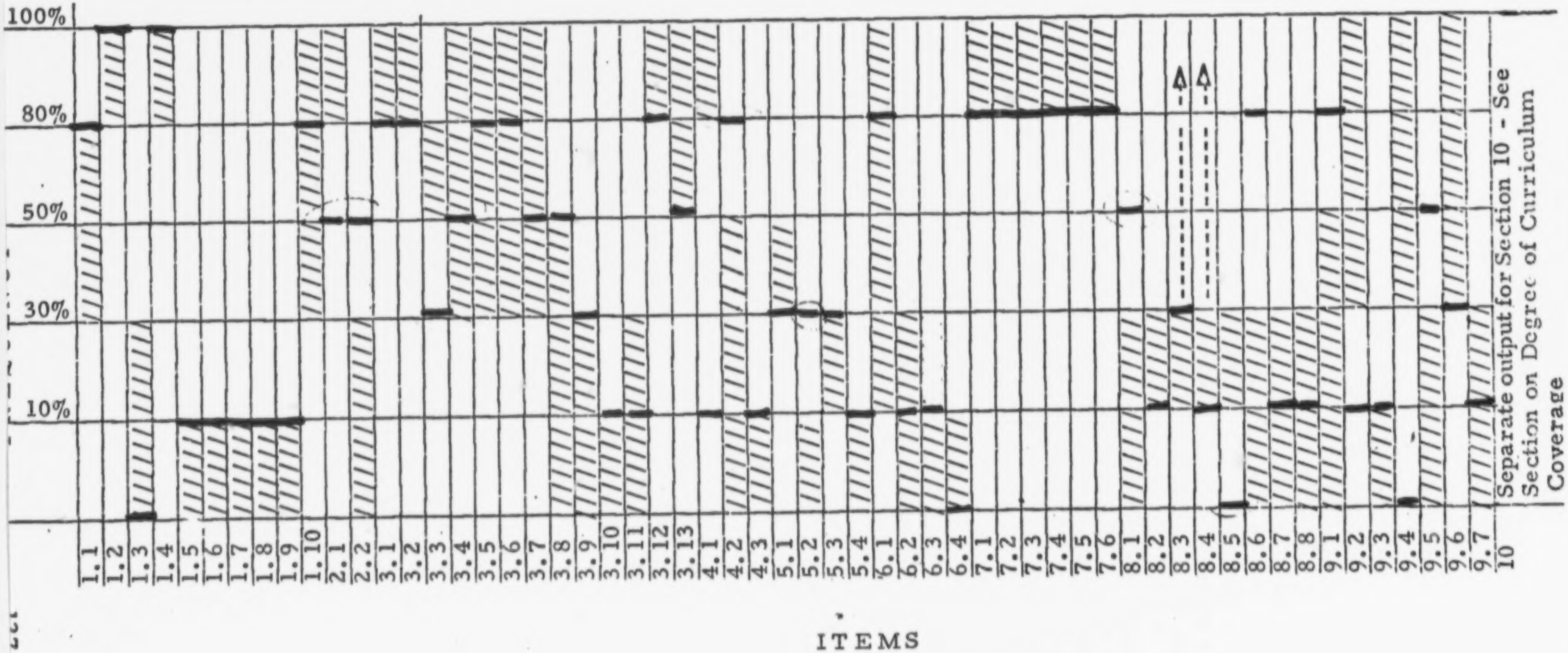
10. Classroom Activities

Please indicate percent of total class time taken up by the following types of activities:

Actual Activities Time Budget

	10	30	50	80	100% of the time
-teacher lecture or demonstration		X			
-individual students reading aloud					
-teacher-student question and answer session		X			
-discussion	X				
-students reading at desk					
-students doing lab or shop work					
-students working in small groups (games, discussions, etc.)					
-students doing programmed work at desk (i.e. workbook exercises, etc.)	X				
-students doing nonprogrammed work at desk (i.e. essay writing, etc.)	X				

SUGGESTED STANDARDS FOR EVALUATING TEACHER BEHAVIOR & STUDENT RESPONSE



PROGRAMS APPLICABLE TO THE TEACHER EVALUATION MODEL

One-year gift membership and subscription to a professional teaching organization and journal

Improvisational theatre techniques

Master linguist tutor

Pay teachers in relation to student achievement

Sabbaticals for teachers

Video tape classroom monitoring system and inter-class and inter-school critiques

Chapter V

INSTRUCTIONAL PROCESS MODEL

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Exercising of the Instructional Process Model: Four Programs	9	267

An Instructional Process Modelto Generate Educational Programs

The School Process Model, of over-all school administration, and the Teacher and Curriculum Evaluation Models, have been described in preceding sections. One other model, the Instructional Processes Model (IPM), is needed to integrate the psycho-social dynamics of the teacher, curriculum, and classroom, and of the dormitory or other sites of non-academic interaction. This model generates educational programs for use both inside and outside the classroom. For these purposes, an educational program is defined as a particular combination of teachers, teaching techniques, equipment (if necessary), curriculum materials, and environment, designed to achieve specific, operationally defined instructional objectives.

To produce these program outputs, the IPM needs the following inputs: curriculum requirements, in terms of operationally defined instructional objectives; student entry-level capabilities, in terms commensurate with the instructional objectives (e.g., if the objective is to teach students to compute the hypotenuse of a right triangle from its two sides, it is necessary to know whether the student can do square roots); teacher capabilities, in terms of substantive knowledge and teaching skills; and the constraints of time, space, facilities, and equipment.

The processing logic of the IPM formulates the output programs from the input requirements, resources, and constraints. The process consists, basically, of three simple operations: the repeated comparison of the requirements for and the capabilities of the actors involved, to determine performance gaps to be closed by programs; the decomposition of performance gaps and instructional processes into subordinate components that may be matched more meaningfully than in their aggregates; and the cost-effectiveness comparison of alternative mixes of program components, to generate the most efficient programs.

The following is an example of the way in which the IPM may be employed. In this case, one of a team of two teachers is using it to generate improved classroom procedures, to counter an apparent lack of student motivation. The numbers used for each step below match those indicated in following flow chart of the entire IPM.

1. List topics and detail level of curriculum requirements.

2. Determine requirements for memorization, application, accuracy, and cross-modal transferability (a measure of concept-abstracting capability) of the substantive content described in (1) above.

3. Compare student current capabilities with the requirements of (1) and (2) above.

4. Compare the instructional objectives derived in (3) above with the instructional capabilities offered by the available teacher or teachers.

5. Determine from this comparison (4) the instructional capability gaps to be filled; that is, those instructional objectives that cannot be achieved by the available teacher or teachers.

6. Identify relevant student dynamics from entry-level characteristics and from observation -- for example, tendency to prefer work in small groups, sex grouping, group criticism of any apparent "leaders," etc.

7. Determine student cognitive and affective (motivational) needs in the context of the curriculum requirements (2), student characteristics matching with these requirements (3), and student social dynamics (6).

8. Decompose the instructional "supplies" and the student "learning demands" into their component elements.

9. From the components determined in (8), construct a profile of the cognitive and affective requirements for an educational program.

10. Select from an inventory of instructional processes (see the Curriculum and Teacher Evaluation Models) those most relevant to the requirements profiled in (9).

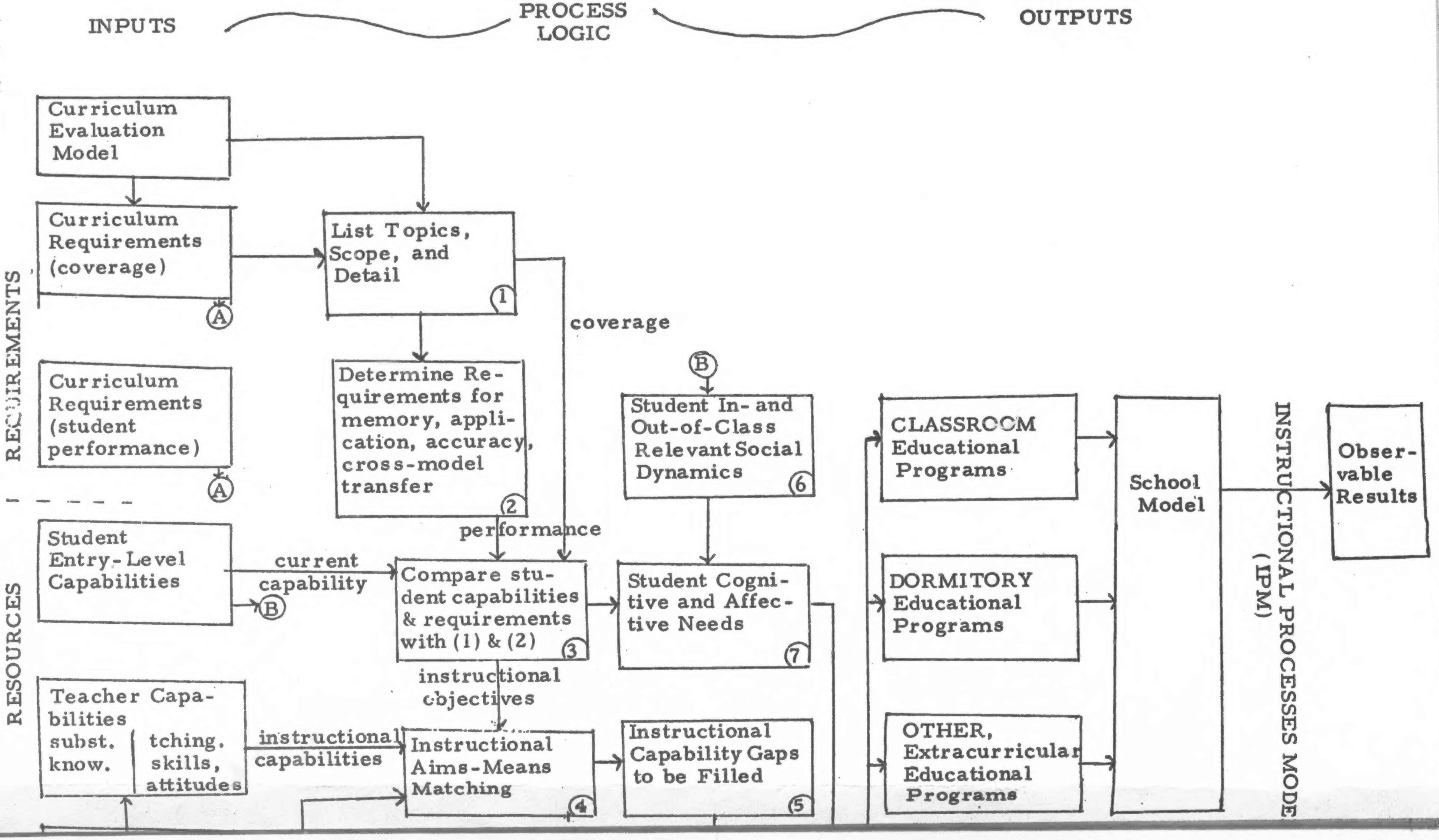
11. Generate additional, innovative processes relevant to the requirements by a process of relevant continuum definition, experimental movement to the extremes of the continua, selection of apparently useful values along the continua, and exploration of all possible combinations of the continua and the selected values on them. That is, consider first the most extreme means of obtaining given goals, as

for example, holding class fourteen hours each day in order to maximize learning, or two hours each day to maximize student enjoyment. Consider, at the same time, what other objectives are neglected by such extreme concentration. Then consider a variety of gradations between these extremes.

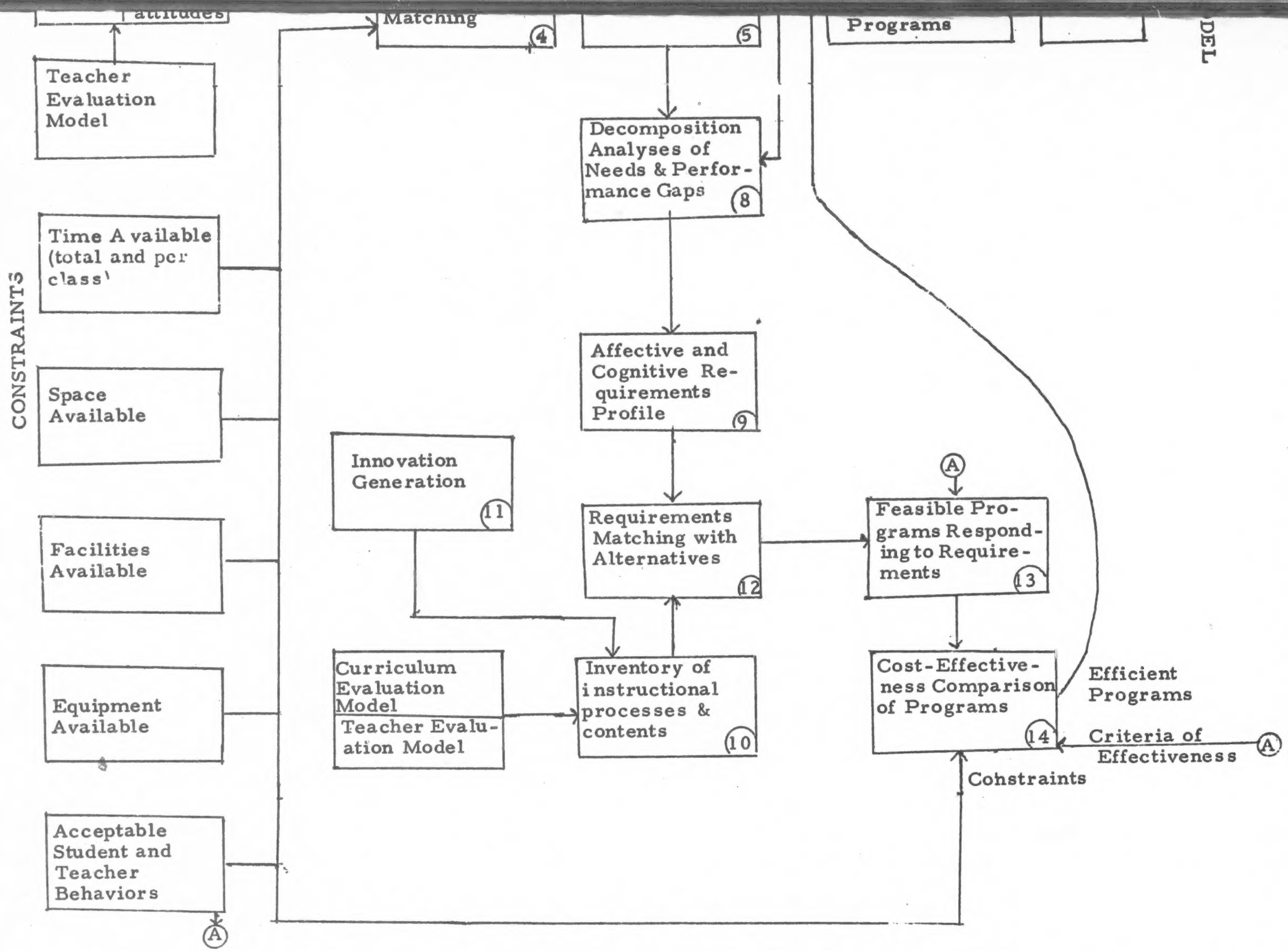
12. Match requirements with the alternatives generated in (10) and (11).

13. Select feasible alternative programs responding to the requirements from the several alternative means-requirements matching (12) and acceptability constraints.

14. Compare the alternative programs for relative cost-effectiveness on the basis of criteria of effectiveness derived from curriculum and behavioral requirements.


INPUTS
PROCESS LOGIC
OUTPUTS
REQUIREMENTS
RESOURCES
Curriculum Evaluation Model
Curriculum Requirements (coverage)
Ⓐ
Curriculum Requirements (student performance)
Ⓐ
Student Entry-Level Capabilities
Teacher Capabilities
subst. know.
tching. skills, attitudes
List Topics, Scope, and Detail
①
Determine Requirements for memory, application, accuracy, cross-model transfer
②
coverage
performance
current capability
Ⓑ
Compare student capabilities & requirements with (1) & (2)
③
instructional objectives
instructional capabilities
Instructional Aims-Means Matching
④
Ⓑ
Student In- and Out-of-Class Relevant Social Dynamics
⑥
Student Cognitive and Affective Needs
⑦
Instructional Capability Gaps to be Filled
⑤
CLASSROOM Educational Programs
DORMITORY Educational Programs
OTHER, Extracurricular Educational Programs
School Model
INSTRUCTIONAL PROCESSES MODE
(IPM)
Observable Results

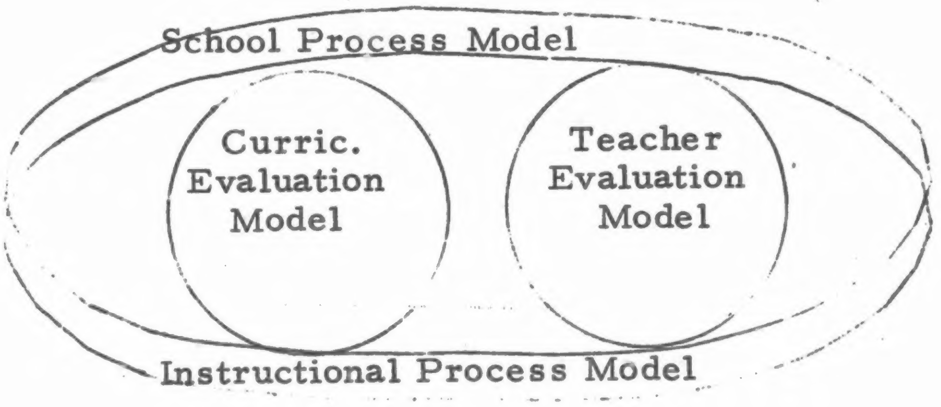
DEL


attitudes
Matching
4
5
Programs
Teacher Evaluation Model
Time A vailable (total and pcr class'
Space Available
Facilities Available
Equipment Available
Acceptable Student and Teacher Behaviors
A
CONSTRAINTS
Decomposition Analyses of Needs & Performance Gaps
8
Affective and Cognitive Requirements Profile
9
Innovation Generation
11
Requirements Matching with Alternatives
12
Curriculum Evaluation Model
Teacher Evaluation Model
Inventory of instructional processes & contents
10
A
Feasible Programs Responding to Requirements
13
Cost-Effectiveness Comparison of Programs
14
Efficient Programs
Criteria of Effectiveness
A
Constraints

IPM Program Examples

The four examples of programs described below were selected on the basis of their being too broad to be evaluated by either the Teacher or Curriculum Evaluation Models, but too concentrated on the special area of instruction to be evaluated by the School Process Model of overall school administration.

Thus, programs concerned chiefly with improving teacher communications with students, such as Indian language training for teachers, are to be evaluated by the Teacher Evaluation Model. Programs concerned with curriculum development are to be evaluated by the Curriculum Evaluation Model. Programs relating to school administration, such as contract schools and standardized testing, are to be evaluated by the School Process Model. It is the programs falling in between these areas and concerned with instruction affected by more than a single teacher or set of curriculum materials alone that are to be generated and evaluated by the Instructional Processes Model (IPM).



Among the programs generated or evaluated by the IPM are:

> cash dividends for student achievement, for purposes of motivation;
>
> tutoring of infants, to reduce language and cultural barriers;
>
> small seminar groups with student-selected topics to increase motivation and change teachers' role from custodian to educator (may also be evaluated by Teacher Evalu-

ation Model);

student rating of teachers to motivate teacher responsiveness to student needs (may also be evaluated by Teacher Evaluation Model);

student-teacher role reversal, to change teacher's role from custodian to educator;

student intra-school academic competitions, to increase motivation;

classroom student teams, to increase motivation;

upward bound from elementary to high school, to increase motivation;

separation of students by sex for classroom work, to reduce student inhibitions;

high school work/study program to increase motivation and development of employable skills (could also be evaluated by School Process Model);

master tutor program for improved motivation (could also be evaluated by Teacher Evaluation Model);

academic competitions among BIA schools to increase motivation and reduce cultural and geographic isolation;

Indian Corps (Red Berets) for on-reservation service projects, to increase motivation and personal development;

instructionally "active" school buildings to increase student interest in the physical and social sciences (could also be evaluated by School Process Model);

student-produced educational films and texts to reduce language barriers;

intensive school dramatics program of weekly plays prepared by students to reduce language and cultural barriers;

elementary school zoos, to motivate interest in biological and social sciences;

mechanical "zoo" or micromuseum to give students working familiarity with contemporary technology;

long summer field trips to reduce cultural and geographic isolation;

many short-range field trips, to increase motivation and career orientation;

on-bus, on-line education to improve instruction;

paraprofessional teaching aides to improve instruction;

teacher-counselors, to improve counseling relevance to learning problems;

pupil exchange program of foster homes to reduce cultural isolation;

biographical films of successful contemporary Indians to provide positive role models for student achievement (could also be evaluated by Curriculum Evaluation Model);

home service centers located at schools to encourage parents to observe classes and visit students and teachers;

year of work before college to reduce college dropout rate among Indians;

integrated BIA schools, including non-Indian pupils (could also be evaluated by School Process Model).

touring Indian success models, to increase motivation;

traveling shows to reduce cultural isolation;

periodically centralized schools as an alternative to full-time boarding or very small dispersed schools; and

home instruction by siblings, using games, to increase instructional effectiveness.

The four examples of program cost-effectiveness evaluation with the IPM have been selected for their relative complexity and potential significance; they are, therefore likely to illustrate all aspects of the model's uses. They are:

cash dividents for student achievement;

classroom student teams to increase motivation;

upward bound from elementary to high school; and

separation of students by sex in classes.

The flow-chart of the IPM is followed through below, step by step, for these four programs. Either those steps that cannot be filled in for a program are inapplicable, or the program needs to be defined further.

Model Step	1. Student Achievement Cash Reward Program	2. Classroom Student Teams Program	3. Upward Bound from Elementary to High School	4. Separation of Students by Sex in Classes
1) List topics & detail level of curriculum requirements	All topics, standard detail → --chiefly motivation	--chiefly motivation and individual instructional exposure to teachers speaking same language.	--chiefly motivation and awareness of relevance of content to future activities.	--chiefly operational to minimize distraction
2) Comparison of requirements & capabilities: memory: application: accuracy: cross-modal transferability: substantive content:	All now 2-3 years behind national average → --generally poor motivation	--generally poor motivation, --fewer opportunities for individual instruction, --almost no instruction by persons speaking same language as students.	Application: uncertainty of relevance of elementary content to aspired-to high school activities	
3) New requirements to make up deficit	2 - 3 year acculturation of student achievement, strong motivation	Individual instruction by speakers of students' language	Clear and dramatic relevance of students to later activities.	Elimination of alleged distraction in classroom process.
4) Matching of current instructional aims (3) and means	Motivating insufficiently motivating teachers →	+ insufficient tutors speaking students' language.	Gaps in personal relevance	Alleged classroom distractions

Model Step	1. Student Achievement Cash Reward Program	2. Classroom Student Teams Program	3. Upward Bound from Elementary to High School	4. Separation of Students by Sex in Classes
5) Instructional capability gap to be filled	Student motivation	Individual instruction, student language speakers, student motivation	Lack of awareness of relevance to elementary studies to high school activities	Removal of distractions
6) Relevant student social dynamics	Preference for spending money to buy clothes, snacks, etc.--Some reluctance to work at menial tasks to earn spending money. Greater salience of concrete forms of reward.	Preference for working in groups, avoidance of individual obtrusiveness competitiveness sanctioned among groups but discouraged among individuals.	Desire to imitate older children, gain their capabilities.	Modal preference for working in group of the same sex, with numerous exceptions.
7) Student needs: Cognitive:	Clear indications of relationships between academic achievement and economic rewards.	Individual instructions on a one-to-one tutorial basis by a peer or near-peer at a pace determined by the learner, reinforcement of what is learned by teaching it, thereby exercising the new knowledge.	Awareness of the relevance of elementary core subjects to secondary subjects and activities.	Undistracted cognitive effort without restriction of motivation.
Affective:	Concrete recognition of academic achievement in a private, unobstrusive way not exposing the achiever to peer criticism.	Peer support and encouragement of learning, groups loyalty as motivation for achievement.	Role models of high school students to motivate elementary achievement.	Unclear here--may be for adjustment to opposite sex in classes as well as extra-curricularly.

Model Step	1. Student Achievement Cash Reward Program	2. Classroom Student Teams Program	3. Upward Bound from Elementary to High School	4. Separation of Students by Sex in Classes
8) Decomposition of student needs and program capabilities for satisfying needs	Needs: clarity of reward structure; privacy of rewards; concreteness of rewards. Capabilities: all above	Group activities, individual unobtrusiveness, individual pace, learn by doing (teaching) all above	Role models, observation of role models.	Both more and less communication between sexes.
9) Profile of cognitive and affective requirements	See (7) above →			
10) Select from instructional processes inventory those most relevant	Grades, diplomas and certificates, verbal approbation	Tutors, CAI	--direct exposure to older (high school) students --classes on high school activities --reading about high school activities	--individual study --study with groups of same sex --mixed classes
11) Generate additional innovative processes relevant to requirements by: -defining relevant continuum: -experiment with extremes; -select less extreme but novel points; -reduce to practicality.	rewards wealth, fame money reward $1-$5 for Grade A work	--grouping students in class --degree of individual instruction --one-to-one tutoring, class as one team. --one-on-two/three tutoring. --10 3-person teams --train teachers to implement	--exposure to older students --put in high school classes temporarily or have high school students teach some elementary classes -- periodic immersion of elementary students in high school, vice versa.	--degree of control with opposite sex --no contact vs. control in all activities --contact outside classes only, contact in some classes only

Model Step	1. Student Achievement Cash Reward Program	2. Classroom Student Teams Program	3. Upward Bound from Elementary to High School	4. Separation of Students by Sex in Classes
12) Match requirements to alternatives in (10) and (11) above.	Grades, certificates, and verbal approbation do not meet requirements for privacy, concreteness, --modest money rewards do.	Tutors and CAI do not provide peer support and group loyalty, also exceed resource constraints. Student teams do meet requirements.	Classes and lectures on high school too abstract, fail to provide direct role models.	No control impractical, classes of same sex only risk scheduling and motivational problen
13) Select feasible alternatives meeting requirements and acceptability constraints	Cash rewards for academic achievement	Student teams in classroom	Elementary student visits to high school for periodic, brief periods of participation, as well as high school students tutoring elementary students part-time	Some contact in classroom activity at student and teacher option.
14) Comparison of alternative programs for cost-effectiveness	Cash rewards cost more than do grades, certificates, and verbal approbation, but are also believed to be much more effective. If the pilot program indicates no greater effectiveness, cash rewards are inferior in cost-effectiveness and should be dropped. If cash rewards do achieve significant increases in student performance, their cost-effectiveness should then be compared with competing methods while the program is continued.	Student teams cost much less than tutors or CAI, and are at least somewhat more effective according to pilot programs at Haskell and elsewhere. Therefore, student teams appear to be a more cost-effective way of achieving individual student instruction with increased motivation than the alternatives.	Abstract presentation of high school activities to elementary school children is more expensive (in teacher time) and motivationally less effective than actual contact. Whether elementary students immersed in high school is better than high school students tutoring elementary students is unknown. Probably a combination is desirable because each yields different types of exposure.	Sex-isolated classes cost more than mixed classes where the sexes are not numerically balanced across grades, due to scheduling problems and insufficient staffing. Since the advantages ar doubtful, cost-effectiveness appears low.

Cost-Effectiveness Comparison of Four Example Programs

Comparison of these four programs with each other depends on the degree to which they are directed to a common set of goals. Programs 1, 2 and 3 are all motivationally oriented, and therefore share at least the goal of increasing student motivation. The actual performance of each approach in achieving higher student motivation can be determined only by experimental trial. However, the costs of all three may be estimated and a 'break-even' requirement for effectiveness estimated, as follows.

Let it be assumed that the cash reward program costs \$2.80/per student/per year, the classroom student teaming costs \$3.00/ per student/ per year (for teacher training), and the upward-bound-to-high-school program costs \$266.00/per student/per year. To be equally cost-effective, the effectiveness ratio of the three programs must be 2.80/2.80: 3.00/ 2.80: 266.00/2.80, or 1 : 1.07 : 95, for programs 1, 2 and 3, respectively. The upward-bound program would therefore have to be more than 95 times as effective as the cash rewards program to be considered more cost-effective.